INSTRUCTIONAL Material

MARCH-APRIL 1956
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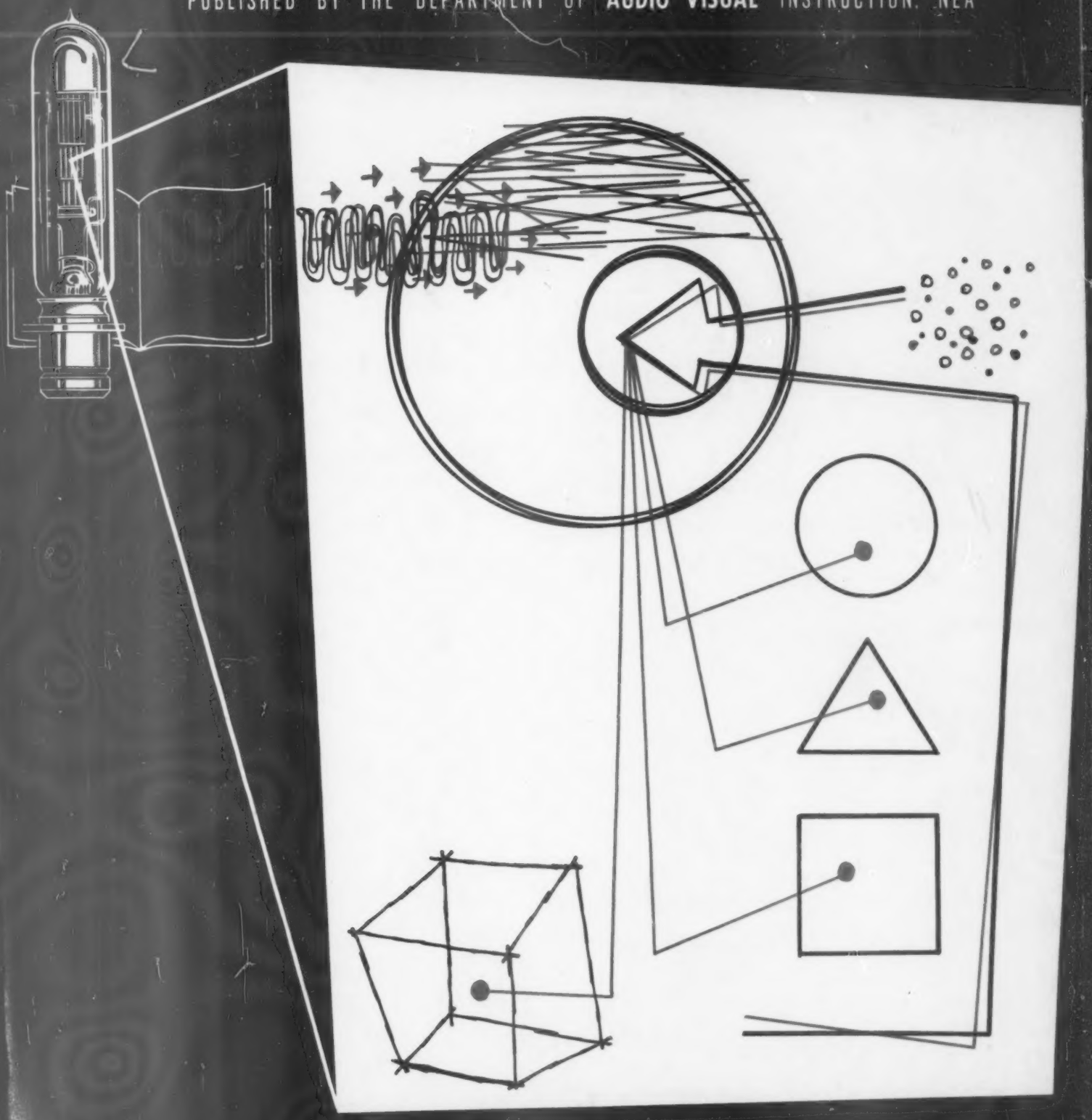
PUBLISHED BY THE DEPARTMENT OF AUDIO VISUAL INSTRUCTION, NEA



Look Beyond the Picture ____ page 44

The School Building Crisis ____ page 49

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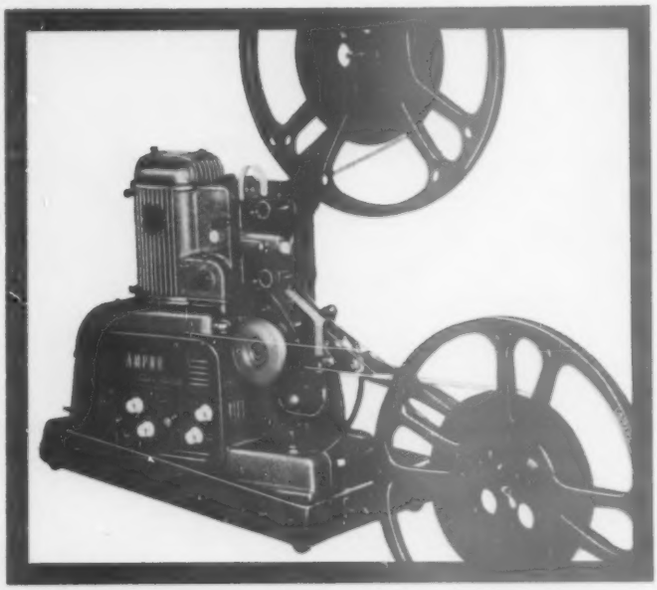

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*"This film changed a lot of ideas I had of England"

November 11, 1955

Dear Sirs,

Recently I had occasion to show your film *"Heart of England"* to a group of 12th grade high school seniors. I asked them to write down some of their reactions. As I read them, I thought you might like to read them too.

Sincerely yours,
Gerda Bos, teacher
Chicago Christian High School

"The picture gave me an entirely different view of England, whereas I had always pictured England as rather foggy, full of stuffy Englishmen."

"The film changed a lot of ideas I had of England . . . I also thought England was very backward and old fashioned . . . but I found I was wrong on that too . . ."

"I enjoyed seeing the home of Shakespeare. It seemed as though he were still there . . ."

"I always pictured England as crowded cities with narrow streets and old buildings . . ."

"My reaction to the film on England was that of surprise and wonder . . . the English carnivals with such rides almost astonished me . . . I had always thought they were so staid and severe."

"On the whole, it gave me a new slant on life in England."

***HEABT OF ENGLAND**
Technicolor

The Cotswoids, the "Heart of England," is perhaps of all England, the most English—a place of gentle hills, shut-in valleys picturesque villages, and little towns with great stone churches, rich in history.

This is Shakespeare country and the film shows us Stratford-on-Avon and the Shakespeare Memorial Theater to which visitors come from all parts of the world. But it is predominantly farm country and most of the people make their living from the land with its rich wheat fields and blossoming orchards. In the summer, they gather at the Three Counties Show at Hereford to exhibit the things they have grown and to look at the new machines that can make their jobs quicker and easier.

When summer is over and the harvest has been brought in, the people join in the harvest festivals and the fairs in Evesham, Gloucester, Tewkesbury and at Shakespeare's Stratford, before they return to their work preparing for the year ahead.

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INSTRUCTIONAL *Materials*

"... to help improve instruction through the more effective use of materials"

Published by Department of Audio-Visual Instruction, NEA

Volume I Issue No. 2 March 1956

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THE *Editor's Notebook*

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Rodney Tillman succeeds George W. Denemark as executive secretary of ASCD effective September 1. Denemark will go to Maryland University as assistant dean of education.

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President, National Association of Journalism Directors

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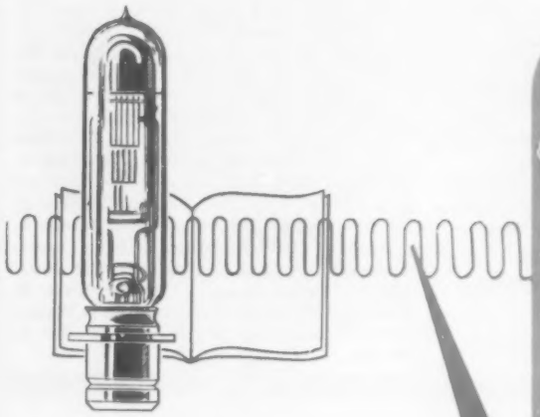
It has been a real pleasure for our group to work with DAVI over the years in a close and friendly partnership toward the accomplishment of that objective.

We, therefore, wish you success in all your good works, including the publication of the new magazine.

—ALAN B. TWYMAN

President, National Audio-Visual Association, Inc.



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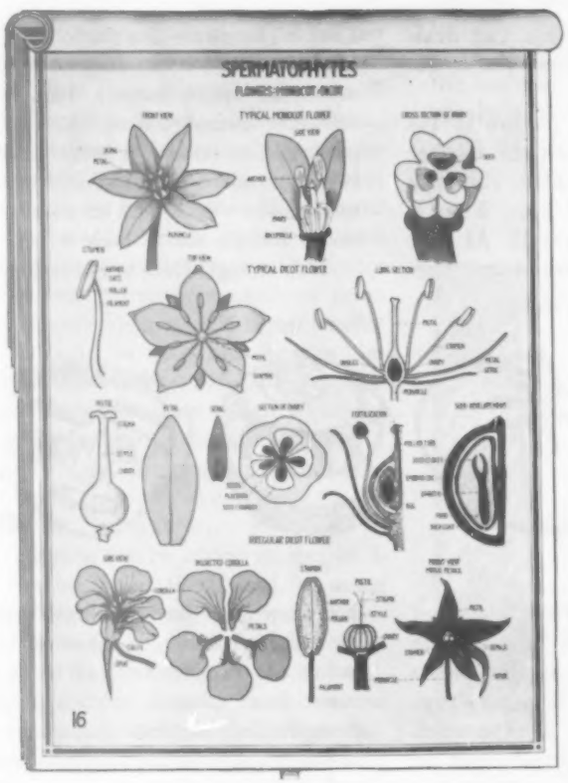

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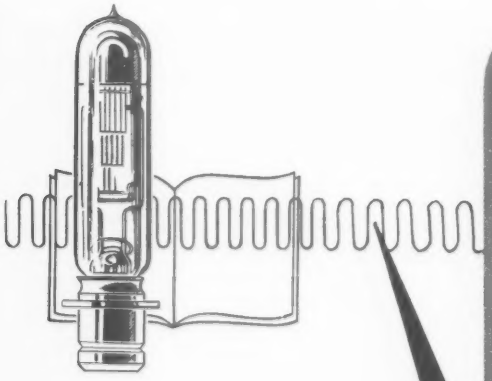

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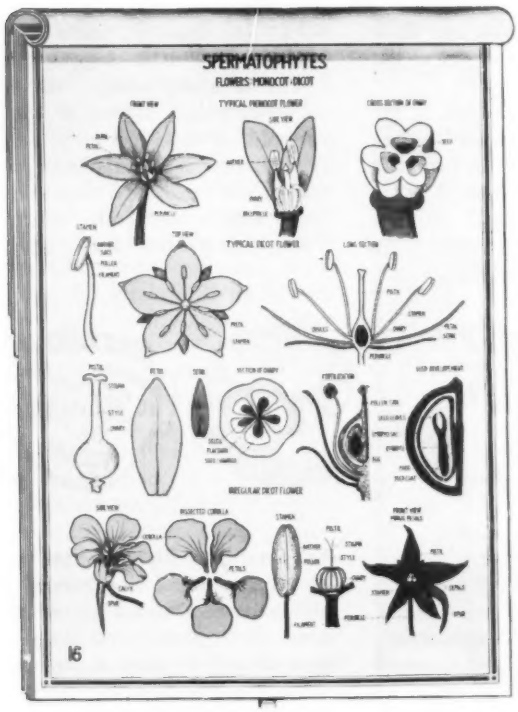

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Symbolism is as old as man. It has long haunted poets and philosophers who find the explanation of art in the way an artist treats his symbols. For them the object symbolized is less important than the mood created. The author, however, is concerned with something else in his recital below of how a teacher can add to his skills and exercise creativity. This is symbol as sign—here the message counts.

thinking with pencils

By ROBERT R. COLEMAN

On leave from the staff of San Diego State College, the author is doing graduate work at Teachers College, Columbia University.

MOST TEACHERS now realize the impact of visualized concepts on the student's mind, yet visualization lags. Often the classroom teacher thinks he isn't "arty" enough—he can't draw; thus he feels he must depend on commercially prepared materials which are costly, sometimes not available, and almost never express exactly the thought he wants to put across.

What every teacher should know is that it is not necessary to be a finished artist or even to have a talent for drawing in order to make a simple, graphic illustration. It takes thinking and planning, different perhaps but not so far removed from the kind of organization required to make a lesson plan. You think of what you want your illustration to accomplish, lay down the plan in outline form, and consider the main elements of your idea. You decide what is the purpose of the concept you want to illustrate and lay your emphasis there.

Other than that, if you can draw circles, squares, and cones you've got the problem licked.

Let us look at the picture in the right-hand corner. Here the teacher is picking up a symbol to complete the illustration behind him. What is the message on the easel? At first glance it might be hard to say. Perhaps several thoughts flash into mind—perhaps none at all. But as the teacher explains, the symbolization becomes clear—this is Thought struggling up from its lowest level to reach the heights indicated by the sun in the heavens. Note the cross at the peak of the first ascent. This is the church (Christian symbol) which helps Thought in its upward climb. The arrows indicate the path already traveled while the mountains symbolize the ups and downs that lie ahead. The teacher picks up an "X" to mark the location where Thought is momentarily arrested.

Note the simplicity of the elements that make up the picture. All of them can be reduced to three basic geometric forms—circle, triangle, square—and their variations. (Wherever man constructs he has a tendency to use these mechanical forms. A view from the air will show the geometric order imposed on the landscape by humans in contrast with nature's own fluid lines.) The circle is a static form but holds interest—it can suggest the sun, moon, an apple, orange, ball, head, or other round object. A triangle, pyramid, or cone has great activity. It is dynamic and creates interest and unrest. The square and its many variations have a more stable effect.

Even straight lines at the same time that they give direction have meaning. A horizontal line moves from end to end in a restful way while the same line placed vertically has strength and suggests movement up and down. A diagonal line is dynamic and seems to be falling, always active and not restful. Placing a short line beside a longer one gives a feeling of depth—the longer seems closer and the shorter farther away. If two lines converge an arrow-like effect results. If the form is closed the effect is that of a wedge. Two major parallel lines will attract the eye above everything else. If the importance lies elsewhere in the picture, this construction should be avoided. The point where two or more lines converge will also draw attention; thus if allowed to come together at the border of an illustration, they will draw the eye from the center of interest.

These then are the simple elements easily mastered by the beginner. But there is another important factor—

perhaps most important of all—space. Where the artist places certain elements in relation to others has much to do with their meaning. Nearness will be suggested when objects are drawn larger, more interesting, lower on the page, with greater constrast, or as forms overlapp. g other forms.

Lines Create Effects

Look again at the easel behind the teacher who is picking up his symbols. Why does the sun seem so far away? Because it is small, high up, static, and its lines comparatively fine. Note the peak with the cross on top—it seems closer because it is drawn lower on the easel, its lines are heavier, and it overlaps the other peaks. The figure of the teacher seems even closer as he leans over his symbols. Here, besides position in the forefront, there is bigness, dynamic lines, and overlapping. Note how the lines which represent the teacher's hair contrast with other lines in the drawing. See also how his arm leads the eye directly to the symbols on the floor.

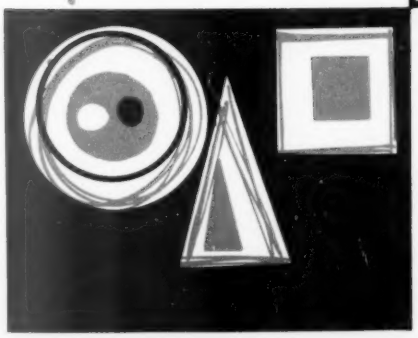
Texture can be added in simple illustration by shading, and by using lines in various ways. Turn for a moment to the row of round objects across the first page. Note the tiny markings that express bumpiness on the orange, the little circles that suggest rough rubber on part of the ball. See the crewcut worn by the man with the alert face; contrast the impression of vigor given by short, strong lines with the limpness of the hair in the other drawing. These are simple techniques used by the artist to add interest, create certain feelings.

Beginners in the art of illustration will be encouraged to learn there is no need for photographic likeness in a sketch. Designers have long known that too careful reproduction often spoils a message. It is much better to keep everything simple, using a minimum of lines, forms, and symbols. Effects should be suggested rather than laboriously contrived. Details are needed only to clarify important points. Symbols are often more effective than representational drawings, but care must be taken to use only universal ones. Arrows, for instance, always signify direction; the cross suggests Christianity; a star, the heavens or night; and the heart speaks of love.

As we said in the beginning, an illustration needs to be planned. Once the artist has a general plan fixed in mind, he makes a rough sketch, then develops his symbols. In the drawing below, the portion in color suggests the preliminary sketching; the black line indicates the finished drawing.

If, as stated earlier, the artist determines the purpose of his message and puts emphasis there, this should be borne out by the illustration below. Where is the emphasis in the drawing on the easel? Obviously it is the cross to which the arrows lead the eye. The point of the illustration, then, must be that Christianity is the force that lifts man's thoughts.

But this is really a picture within a picture, and there can be no doubt that in the larger one, the artist is emphasizing the teacher as he searches for the right symbols to make his message more real.



Communication through drawing can be as effective as words and in some instances speaks more eloquently than a page of type. Anyone who controls his hand sufficiently to write and who can organize his thinking in terms of visual elements and symbols is capable of presenting a comprehensible drawing. Knowledge that he can think from mass to detail—from general form to the specific—should assure the person interested in visual materials that he has the ability to get his message across. LET'S THINK WITH PENCILS!

LET'S TALK WITH pictures

EDITORIAL — Floyde Brooker

THE PRIMARY purpose of audio-visual methods and techniques is to increase effectiveness and efficiency in "getting ideas across."

The power of the pictorial media has been demonstrated. This editorial has another purpose, that of pointing out another direction of development, of stating another challenge.

As audio-visual specialists, we are versed in finding and in showing teachers how to use a motion picture. This includes demonstrating its utilization to further class objectives. It follows that we have a responsibility to practice what we preach.

If pictorial media can help teachers get ideas across more effectively, it should do as much for us. It is time to turn the coin and examine the other side more closely. How do we present our ideas pictorially? Granted, many of us lack the techniques of motion picture and television. But most of us do have the camera and the simple graphic arts, which if we have not mastered, we can.

There are jobs words can do better than pictures. So let us not try to make all presentations pictorial. It would be interesting to know, however, how many verbal statements about audio visuals had been made during the past year before superintendents, boards of education, PTA groups, and teachers. Even more useful would be to estimate, if we could, how much further our field might have advanced had we used the power of our own media. Examination suggests that few specialists in audio-visual are practitioners of graphic techniques in their own presentations.

There are many reasons for this, all of them good. We can still talk and make speeches more easily (and usually better) than we can draw or "picture" what we wish to express.

Graphic expression requires a new approach to content, experience, and organization. The structure of pictorial presentation is more compact and has more rigid requirements for success. No one has yet given the details of its logic, grammar and rhetoric. A study of successful graphic presentations and constant practice must suffice for the present.

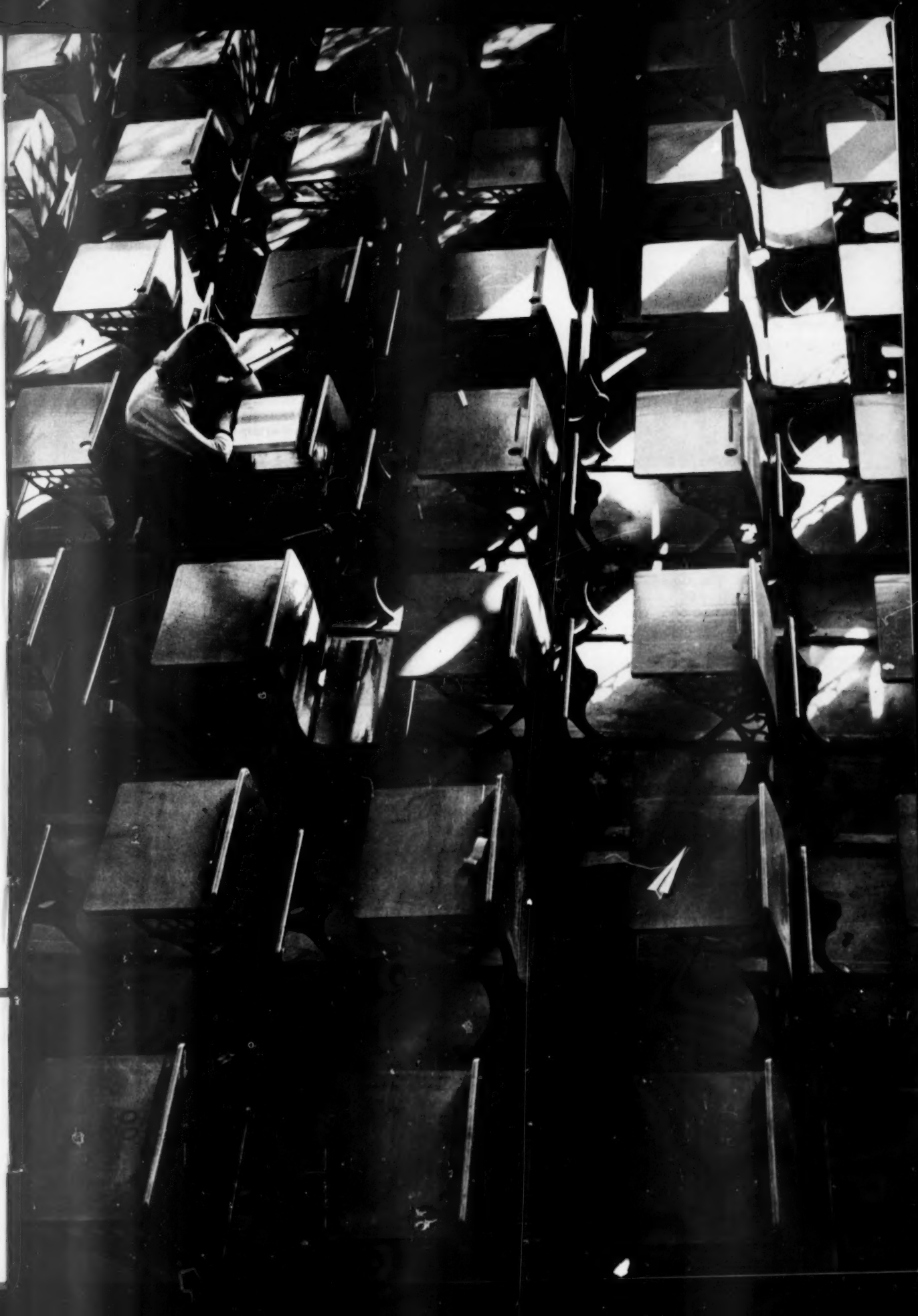
Finally, expression in graphic form is difficult for another reason. We need answers to such questions as: What form of the media is most effective in terms of audience, objective, content, and cost? This is a tough question and it is no demerit to us that few are ready with more than rough rule-of-thumb answers.

If we would be master of our own media, we must master pictorial expression. This is much more than printing words on transparencies. It calls for the use of photographs, graphics, and design. As individuals, we gain some solace from the fact that we are not alone in this. Professional production personnel have their difficulties. Most educational television is illustrated radio; most motion pictures have more meat in the sound track than in the picture track. But we are learning.

Because we believe that one of our purposes is to assist in the art of pictorial presentation, this issue focuses on the use of camera and graphics and the production of materials via transparencies and the silk screen process. Is our reasoning valid? Are there other specific articles you would like to see?

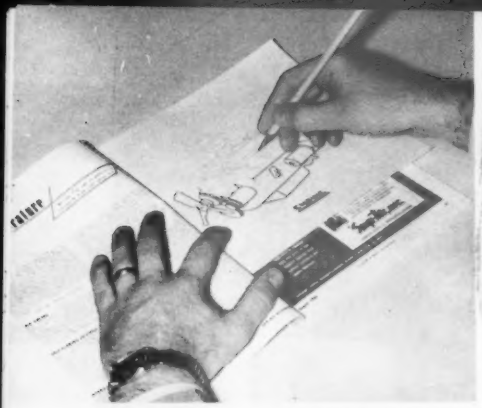
We welcome your replies. We also welcome well illustrated stories about your own graphic presentations with comments as to their success.

The entire page has been given to the picture opposite because it goes beyond the reporting of information in pictorial form. Most pictures, practically all snapshots, simply report that certain objects looked like this or that in such a place at such a time. This picture goes farther. It reports, but only in a most limited sense. What does it do? What does it say to you? We welcome your suggestions for titles or captions. Mail them to us for a follow-through in the May issue.



diazochrome slides for ..

OVERHEAD P



1—Original is drawn on tracing paper with India ink or soft pencil. Here illustration is traced from magazine.

2—Tracing is superimposed on a sheet of Diazochrome Black film; then placed in photoprinting frame.

3—Frame is placed so sun's rays penetrate to film. Exposure time depends on sun's intensity and paper's translucency.

4—Exposed film is inserted in ammonia jar. Where lines on tracing protected film a jet black image is formed.

By JOHN R. O'NEILL

Here is an easy and inexpensive way of duplicating charts, outlines, diagrams, map outlines, and the like. This duplication is made on transparencies and can be in color. The finished transparencies can be used on overhead and 3¼ x 4 slide projectors. This method offers a way for the audio-visual specialist to start his own production of materials on a modest scale. Mr. O'Neill, the author of this article, is with Technifax Corporation. —The Editor

DIAZOCHROME transparencies are printed with ultraviolet light on diazo-sensitized films, thereby producing brilliant colored images on a clear, transparent plastic base. These transparencies utilize most effectively the versatility of overhead projectors.

Like the other members of the family of ammonia-developing diazotype (white-print) reproduction papers, cloths and films, Diazochromes reproduce anything written, printed, or drawn on translucent materials, such as tracing paper, tracing cloth, and film. Diazochromes are available in nine colors: blacks, sepia, blue, yellow, magenta, red, orange, green, and violet.

Dark rooms are not required for processing of diazotype materials, since they are sensitive only to ultraviolet light, and can be printed and developed under normal room illumination.

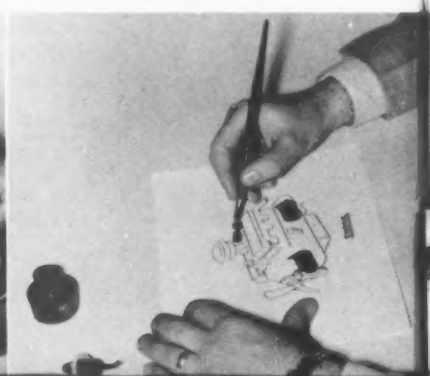
Diazochromes and other diazotype materials are quickly and efficiently processed in ammonia-developing diazotype (whiteprint) machines. Some of the leading names in this field are Ozalid, Paragon, Pease, and Peck & Harvey. Beseler portable printers and developers offer another means of processing Diazochrome slides.

Light Sources Vary

If more professional types of equipment are not available, Diazochromes can be printed by utilizing any strong source of ultraviolet light, such as

5—To prepare master for color overlay, original tracing is printed on Texray instead of Diazochrome film, using techniques shown in steps 2, 3, and 4.

6—Areas which slide-maker wishes to produce in color are opaqued on Texray print in India ink, using light blue image of print as guide.



PROJECTION

carbon-arc or sun lamps. Sunlight can also be used if the original translucent copy and the sheet of diazo-sensitized film are mounted in a photoprinting frame. Simple tests can be made beforehand to determine the exposure time.

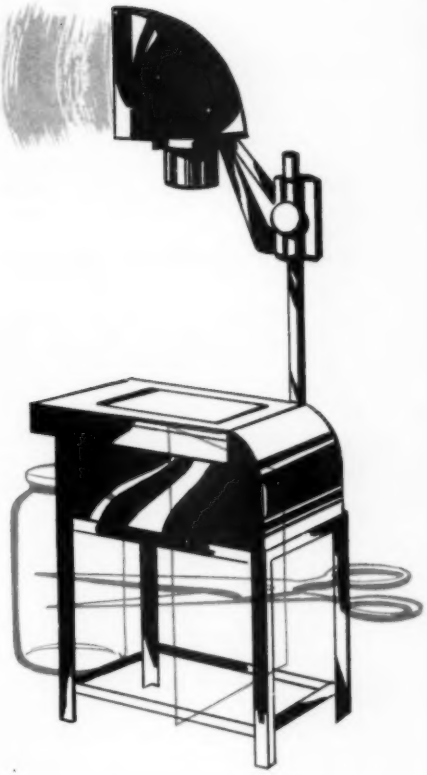
Improvised Developer

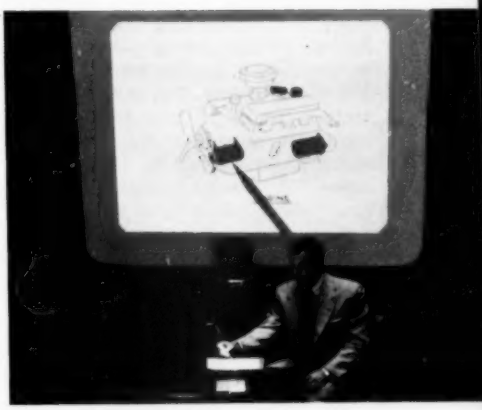
An ammonia developer can be improvised from a wide-mouth glass jar with a suitable cover. A few ounces of aqua-ammonia are poured over a sponge in the bottom of the jar, the exposed Diazochrome is inserted in the jar, and the cap is tightened securely. Development requires only three to five minutes and its progress is observable through the jar.

The design of the overhead projector allows superimposition of several sheets of film, thereby permitting the use of the varying colors to identify the different visual elements of the slide. The horizontal stage enables the speaker to present the transparencies in a progressive disclosure of information, or to build up multiple components into a composite image.

Preparation of these color overlays is greatly expedited by the use of "Texray," a diazo-sensitized, translucent paper which produces a light blue image. This image is not reproduced when reprinted on Diazochrome film. It serves only as a guide for the slide-maker. Several Texray prints are made from the original drawing, one for each desired color overlay. That part of the original which is to be reproduced in any given color is opaqued on one Texray, using the light blue image as a guide. Then this Texray is used to print a Diazochrome of the appropriate color. Only the additions to the Texray image are reproduced. This procedure is repeated on other Texrays for the remaining colors. When the Diazochromes are superimposed, you have a color composite of the original in perfect register.

This technique is illustrated photographically on these pages. A photoprinting frame, sunlight, and an ammonia bottle are used to demonstrate the basic simplicity of the process. The example is a relatively simple two-color slide, but any number of additional color overlays could be added by preparing a separate Texray "master" for each desired color separation.

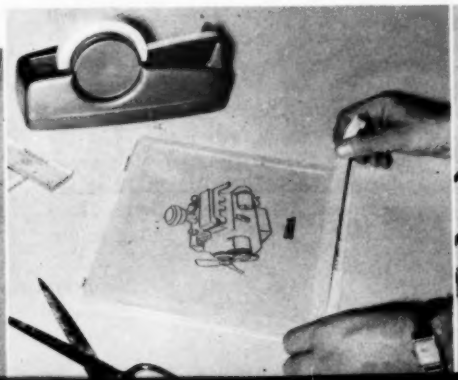




10—Slide is projected on screen. Speaker discusses drawing as whole, lowers overlay to emphasize certain points.

9—Red Diazochrome is superimposed and registered on black film, edge fastened to frame so overlay can be raised.

7—Texray master is printed on sheet of Diazochrome Red film, using techniques shown in steps 2, 3, and 4. Only opaqued areas are reproduced on the film.



8—Black Diazochrome is placed on front of projection frame. All four edges are fastened to the frame with strips of masking tape.

AV programs to qualify for building commissions according to the new requirements. A minimum expenditure of $1.25 to $2.50 per pupil for AV and library materials is specified, depending upon the type of commissions. The AV program must be handled by a building coordinator having at least five hours credit in AV courses.

Chapters on utilization, equipment, materials, building facilities, and other topics are illustrated with numerous pictures of AV activities in many school buildings in the state. Suggestions for a minimum desirable program are outlined.

The handbook has been mailed to all superintendents, principals, and AV personnel in Indiana. It is available to teachers and others in the state concerned with AV methods of instruction.

In the future AVID of Indiana will limit its meetings to one each spring. Programs will be planned to attract and use AV directors, building coordinators, teachers, and commercial representatives. Two days of sessions are in store for AV directors during the 1956 meeting. AV dealers who are associate members will have a chance to demonstrate new materials. A Saturday workshop has been planned for all persons interested in AV.

Three $50 scholarships will be awarded this spring by AVID of Indiana to teachers who plan to include at least one AV course in their summer session schedule. One scholarship is paid by the organization, and two are donated by M. L. Stoeppelwerth, president of Indiana Visual Aids, Inc. This is AVID's third year for scholarships.

N.J. Group Elects Officers

Newly elected officers for the New Jersey AV Leadership Council are Caryl Dunavan (Plainfield), president; Albert Doremus (Glen Rock), vice president; Margaret Joiner (New Brunswick), secretary; and J. Paul Walker (Linden), treasurer. Their terms run from April 1, 1956 to March 31, 1957.

Katharine Duryee (South Orange), Ernest Siegel (Fair Lawn), and Emma Fantone (Montclair) were named to the executive committee. The latter was elected executive secretary of the Council, a post created at the March 22 annual meeting.

Materials Emphasized

AV education was on the program at each of seven district OEA conventions held recently in Oklahoma. Most of the programs emphasized the utilization of AV materials and consisted of demonstrations of current AV methods.

Forum

Choice of Title Provokes Brisk Comment

The protest which follows by Vernon McKown, School City of New Albany, Ind., is only one of many points of view concerning the title of this magazine. Others are found on pages 47, 58 and 60. Space permitting, those still unpublished will be printed before the time of balloting.—THE EDITOR.

THIS IS WRITTEN primarily for you people who have the responsibility of building and maintaining effective audio-visual programs in the public schools of America. During the past six or seven years you have from time to time heard rumors that "certain groups of individuals" would like to take your audio-visual program and place it under a broad Instructional Materials program which would include pamphlets, magazines, and books. But you didn't think it would happen.

May I inform you that it has happened right inside your own DAVI. A group whose motives and sincerity I do not doubt but whose good judgment and understanding of the audio-visual field I certainly question has succeeded to the extent that it has named your official magazine without using the term "audio-visual." It has enlarged the scope to embrace all instructional materials including pamphlets, magazines, and books.

These are not idle statements. Concrete evidence is available to back them up. This spring you will be given a chance to vote whether you wish to be swallowed up in this "jack of all trades and master of none" idea or whether you wish to maintain your identity as an audio-visual educator. May I suggest that you not sit idly by and think it can't happen. It can. If you think it cannot, may I suggest that you come to Indiana and observe the strangle hold this group has on the people who are attempting to promote audio-visual education on a statewide basis. You might also be interested in observing the tactics used so far.

The idea of an Instructional Materials Center which these university people advocate violates many principles of good school administration. We should oppose it for the following reasons:

1. Instructional materials are used by administrators, supervisors, teachers of all subject matter, athletic coaches, teachers of special education, directors of buildings and grounds, directors of research and guidance, coordinators with business and industry, directors of adult education, and in a dozen other highly specialized fields. In an adequate program each of these has its own materials center (other than film) and any

(Continued on page 47)

. . . love is a many splintered thing . . .

WITHIN THE DAVI FAMILY

Among the State Affiliated Organizations

SUPERINTENDENTS from 20 Georgia school systems were presented with certificates of achievement March 16 in recognition of outstanding AV education programs. The awards were made at the annual meeting of the Georgia AV Education Affiliate in Atlanta by Claude Purcell, assistant state superintendent of schools.

Top honors in the state went to Harold Turpen, superintendent of the Henry County system. Mr. Turpen also received valuable awards furnished by Georgia AV dealers. The other citations were conferred according to congressional district, the best AV program in each winning a certificate of achievement; the second best, a certificate of merit.

Winners were determined by an annual statewide AV survey sponsored jointly by the Georgia AV Education Affiliate and the Georgia State Department of Education. The survey included 170 school systems and covered nearly every aspect of AV from teacher training to the number of classrooms with electrical service outlets. These annual surveys have created much interest and have provided Georgia superintendents with a means of measuring their AV achievements.

Otherwise, the annual meeting of the Georgia group was centered around television education. Kenneth Christianson, director of the southern region TV project, staged a demonstration.

From New York State

Syracuse University has 19 foreign students from 14 countries who are studying all aspects of AV education during the current school year. Herman Trubov is executive director of this institute for AV leadership.

Seven AV groups in New York state meet periodically to discuss problems of mutual interest. Located in Buffalo, Rochester, Syracuse, mid-Hudson, Westchester, Metropolitan, and Long Island areas, they strengthen the state organization by discussing important issues and exchanging information.

An active interest in AV certification has been displayed by the State Education Department. Recommendations for certification along DAVI lines are now in progress with Ned Bernard as chairman of the committee.

The annual summer meeting of the New York State AV Council will be held in Rochester on July 13-14. The emphasis will be on local production of photographic materials with demonstrations at the Eastman Kodak Company as a high point. Other sessions will be held at the George Eastman House, the museum of photography. Walt Bennett is program chairman.

The New York State Legislature is considering a $1 million request by Governor Harriman for establishing experimental educational television.

Metropolitan Conference

"AV Approaches to Present School Problems" will be the theme of the annual conference of New York's Metropolitan AV Association on May 11-12 at Public School No. 6 in Manhattan. George D. Stoddard, new dean of the school of education at NYU, will be principal speaker. The topic will also be discussed by a panel including heads of a parent association and a teachers association, as well as a superintendent of schools and professional audio-visualists.

Other activities scheduled for the two-day metropolitan conference include the screening of recent noteworthy films and kinescopes of the various curriculum areas with accompanying panel discussions.

Speaker Announced

Wisconsin's state superintendent of public instruction, G. E. Watson, will be main speaker at the annual meeting of the Association of Chief State School AV Officers in Chicago's Hotel Sherman July 22-24.

Announcement was made when the Association met as a special group affiliated with DAVI March 12 at the Sheraton-Cadillac Hotel in Detroit, Russell Mosely (Wisconsin) acting as discussion chairman. Progress and plans of the various standing committees and the 1956 resolutions committee were also reviewed and approved at that time. Seerley Reid presented a short report on studies conducted by the U. S. Office of Education.

Minnesota Workshop

Walter Wittich and Charles Schuller will have top billing at the Center for Continuation Study on the University of Minnesota campus April 12-13 when AVCAM holds its annual workshop.

Reports on DAVI Detroit, the new magazine, election of officers, How To Do It sessions, and "cracker barrel" discussions will be on the program.

AVCAM President Ted Johnson, St. Paul Public Schools, announces that the new *Audio-Visual Handbook* will be presented to the meeting. At Detroit, this booklet, designed for student operators and teachers, received commendation from many leaders in the field. Priced at only 40¢ postpaid, AVCAM officers hope the book will soon be in the hands of every student operator in Minnesota. DAVI members wishing copies may order them from Wesley J. F. Grabow, AVES, University of Minnesota, Minneapolis 14, Minnesota.

Massachusetts Meeting

Eastern and Western Massachusetts DAVI met jointly with the Elementary Principals Association of Massachusetts at Amherst March 26.

Topic for the morning meeting was, "The Implications of the White House Conference as They Relate to the Elementary Schools of Massachusetts."

Ray Wyman, Bob Stout, and Bill Winston reported on the national convention at a luncheon meeting in the Lord Jeffrey Hotel. Hi-Fi reproduction and preparation of transparencies for overhead projectors were demonstrated in the afternoon.

Avid of Indiana

An illustrated handbook of nearly 200 pages, *The Audio-Visual Program*, has been published and distributed by the Indiana State Department of Public Instruction.

At the invitation of Wilbur Young, superintendent of public instruction, AVID of Indiana named a committee to help plan and prepare the handbook. Its chairman was Altha Sullivan, administrative assistant in charge of AV education in the state department.

The handbook is an aid to superintendents and principals who want their

A picture is more than just a pattern of light and shade and perhaps color spread over a surface for, as each of us looks at it, he adds something of himself to produce a private "picture in the mind." Whoever would use pictures to achieve teaching aims must develop skills in seeing the pupil through the framework of the picture. He must

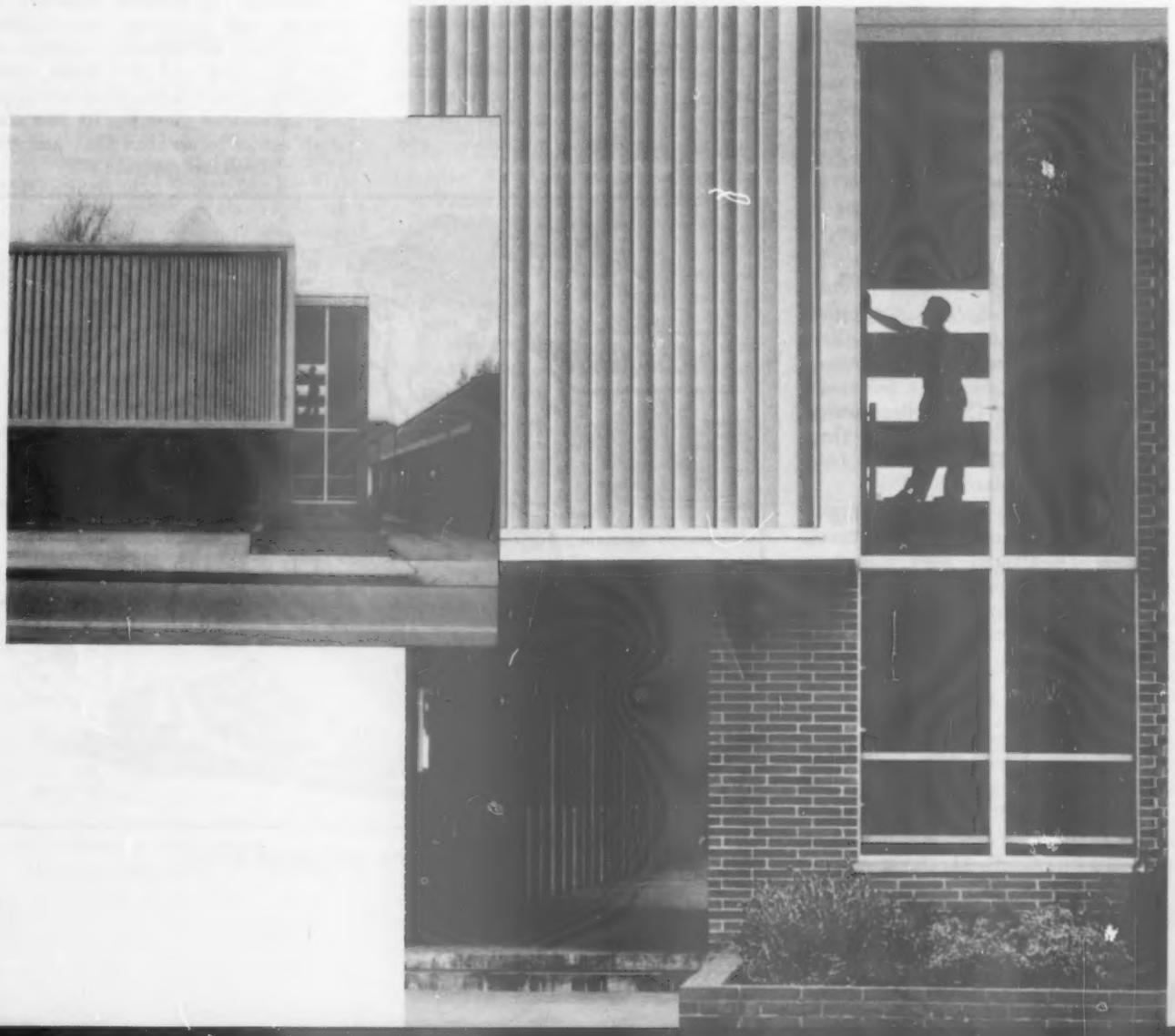
Look Beyond the

By ADRIAN L. TER LOUW

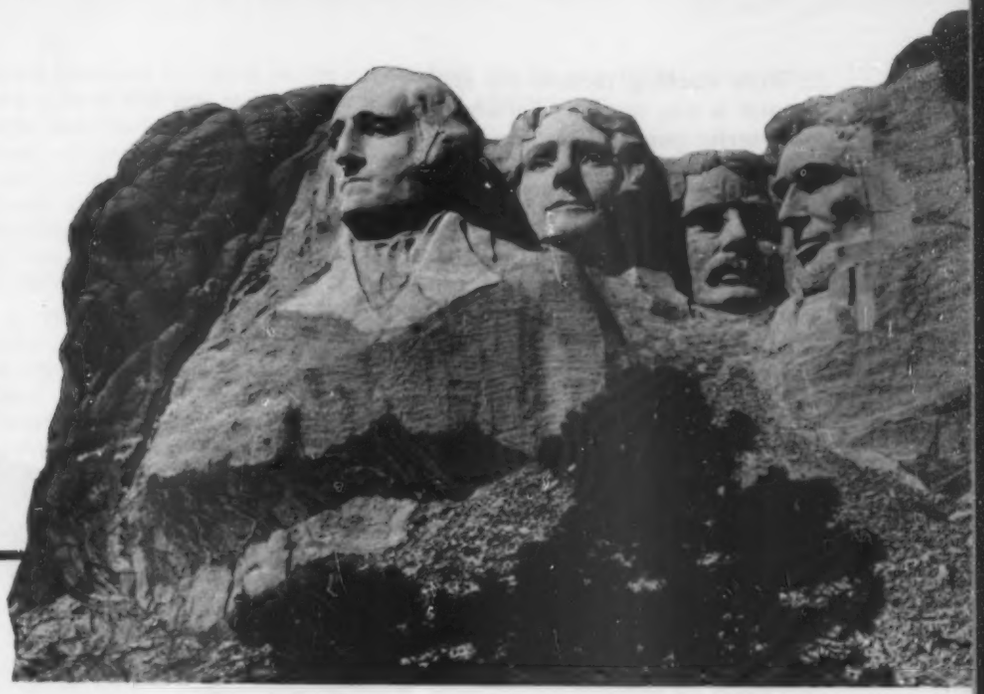
High school biology teacher turned camera artist, the author is educational consultant for Eastman Kodak Co. and lecturer at Johns Hopkins University.

TO DESCRIBE and define is the role we might ascribe to these pictures. When they are combined with names and phrases the words acquire a specific meaning and can then be used for communication and reasoning.

For pictures to be successful in this role we must be sure that students have the requisite related ex-



e Picture



perience to generalize from the visual clues. The Mt. Rushmore Memorial photo in the upper right is not likely to offer much difficulty to the youngster of today who is so accustomed to judging scale in these miniature images. Although he has never seen any of the people firsthand, it is likely that he can identify them from other labeled pictures he has seen. This picture simply describes and defines.

The close-up of the planer below is a different matter. Is it safe to assume that the student is familiar with the machine of which this is a part? Is this typical of the practice we want the student to comprehend? In other words, will he be able to generalize successfully from the details he observes in this photo? Before we dare rely on this picture for instruction, we must know the level of experience of the class; we must look at the picture through their eyes. This picture describes and defines, but a new dimension has been added: the experience necessary to understand and give meaning to the description and definition.

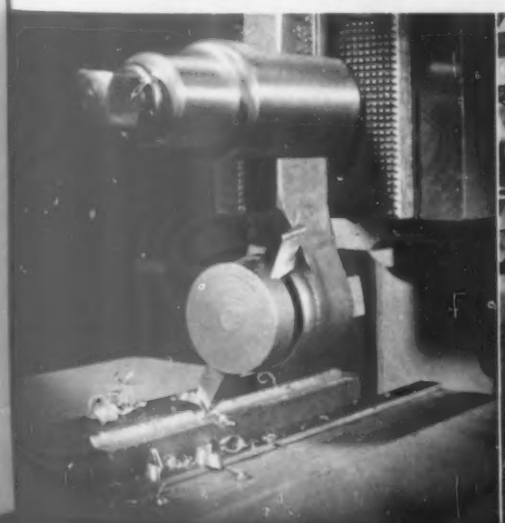
Viewing a photograph of something is very different from seeing it firsthand. The man who made the picture gets in the way. For one thing, he doesn't look at the picture the way you do. For him, it is a recall device. He sees things that are not really shown in the picture.

Oftentimes the photographer is not a reliable judge of how well the picture will serve for communication purposes. We all see things in our own snapshots that our friends cannot. Making pictures for communication requires that the viewer be kept in mind. This is one of the basic differences between the small picture as originally taken and the final selected portion.

By selection of viewpoint, lighting, and instant of snapping the shutter, the photographer can direct the attention of his "reader" where he wishes. What a change he has effected by cropping in the illustration at the far left. He has focused attention on line, mass, and texture and has highlighted the human element. In the cropped form the picture stimulates the imagination. There is mystery, and the viewer is invited to add to the picture from his own background.

Some pictures stimulate rather than inform. The viewer doesn't care how many desks there are in the schoolroom shot below, or what their design is. This picture starts him wondering, and here is the value to the teacher: the situation the student conjures up reflects his inner self. Discussion and caption writing assignments can reveal attitudes and prejudices to the teacher who is trying to help her charges grow up to be useful citizens.

Other pictures invite the viewer to join in. He projects himself into the situation portrayed. Who could help but smile and enjoy the lesson in biscuit making along with the four boys below.



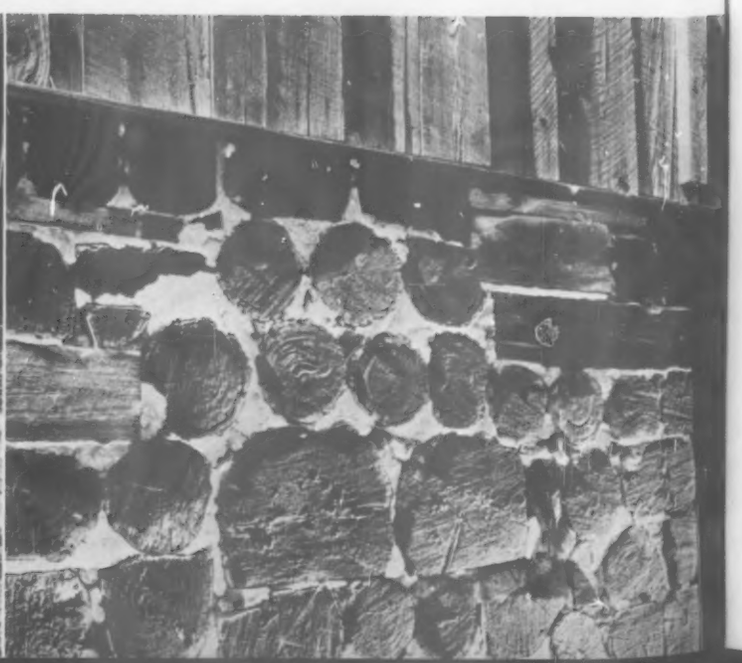
When teaching pictures are made in such a way that they inform but also invite pupils to project themselves into the situation, there is no problem of holding the attention. This must be done with moderation, however, lest the emotional response overshadow the informational content to be mastered.

A sequence of pictures has a power different from that of the single picture. In the single or isolated picture the viewer builds around it from his experience. A series of related pictures can direct his pattern of thinking more precisely. This is especially true when they are projected in sequence on the screen in what is called progressive disclosure.

If the viewer were to look at the "long" shot of the barn and the pasture alone, his attention could wander in many directions. But adding the "medium" shot below calls attention to a singular aspect of the barn which is forced upon the viewer by the close-up in the lower right.

This is a "moving-in" sequence. Here you follow the natural action of the eye, you see something, and then you move closer to see the object of your attention better. There is also the "time" sequence in which you picture events in the order of their ocurrence. Another sequence is that of the dissection, or the synthesis of a subject—you take it apart, or put it back together.

The selection of the sequence of organization is determined by the communicator. Each exerts its own unique power over the response of the "reader," each suggests the personality and purpose of the communicator.



DAVI Forum

(Continued from page 43)

attempt to bring them under one center would increase the red tape, cause resentment and humiliation, and set up a directing "tin god" who would be a "jack of all trades and master of none."

2. Educational films, filmstrips, tape and phonograph recordings, educational radio, and educational TV are and will continue to be the very backbone of the present good instructional materials program. There is not one good AV director in the nation who would agree that his system or any building within his system has developed these media to the extent of their possibilities. Educational radio broadcasts blanket a great portion of the East and Midwest. Educational TV with its closed circuit possibilities is rapidly developing in a hundred or more installations within our schools.

With these dynamic challenges ahead, how can anyone interested in their promotion be so unwise as to suggest that the present AV program be diluted with flannel boards, magazines, pamphlets, and other minor instructional materials necessary in the total educational picture and adequately handled in most instances by other personnel?

3. Any AV program, to succeed, must have adequate financial support. A good instructional materials program demands a tremendous expenditure. Taxwise it is not advisable to have any one budget item too large. Advocates of the Center idea tell us that there are 40 different types of instructional materials. To throw all of these into one budget item and have only one person administer it would cause jealousy. To tax adjustment officials, this immense item would stand out like a sore thumb.

4. An effective AV program must have at its head a person who first of all has been a good teacher. This leader must also be most familiar with curriculum and especially educational psychology. Far too many people in charge of AV programs are gadget-minded technicians with administrative ability who are neither too much interested nor too well trained in curriculum. To place them at the head of a program of the type recommended by the Instructional Materialists would not only be ridiculous but would bring criticism from curriculum, special service, and supervisory personnel who would feel that these "upstarts" were now ready to act as experts in their field as well as in their own. Similar reasons can be given why school librarians are not qualified to direct this many-headed monstrosity.

5. In this fight we are faced with a theory presented by people on the university level who love to lie awake at night and develop ideas for others to carry out. In most instances the advocates of the Instructional Materials Center are too far removed from the practical problems of school operation to warrant more than a careful study of their ideas.

6. This writer especially resents the action of certain nationally recognized library groups in their attempt to convince school administrators that the library is the logical place to house this so-called necessary Instructional Materials Center. He resents the fact that in his own state library heads in teacher training institutions signed a letter sent out to librarians, principals, and superintendents stating that DAVI believed the library was the logical place for the Instructional Materials Center, and that librarians were now qualified to take over the AV program. This statement caused James McPherson, the then executive secretary of DAVI, to wire a strong complete denial.

Resents Repressive Acts

The writer resents the fact that in his own state certain library leaders, on the strength of legal regulations, are preventing the establishment of an AV position within the State Department of Public Instruction comparable to that of Library Science. (Better check your own state regulations and keep an eye on legislation.) The efforts of library leaders in Indiana to subjugate the activities of the audio-visual educators should serve warning to AV people in other states that this "creeping paralysis" is out to win. Particularly when you consider that Indiana has one of the finest AV training and film producing centers in the nation, more educational radio stations than any other state in the union, and training centers in two Big Ten universities producing their own TV programs.

May I urge that you, as a DAVI member, carefully study both sides of the question. It seems to me we have three alternatives from which to choose: (1) To have our programs submerged in the vast sea of instructional materials and have as our immediate superior a "jack of all trades and master of none." (2) To take over the post of the "tin god" who directs this huge program, knowing not only that we are not big enough to handle the situation but that our fellow workers know it also. (3) Each group retain its own identity and independence, each supporting the other, all working for the good of our school system and agreeing that we are both equally responsible to curriculum and administration.

If you prefer No. 3, may I urge that you vote this spring to have the title of DAVI's official magazine include the word "audio-visual" and that its scope be limited not to include "printed materials." # #

Shuns Rigid Interpretation

I was delighted that the committee selected the title INSTRUCTIONAL MATERIALS to adorn the masthead of the new DAVI publication. I had found *Educational Screen* too limited. INSTRUCTIONAL MATERIALS connotes the breadth and width of auditory and visual materials rather than the delimited scope of those AV'ers who see only films, filmstrips, recordings, and a smattering of other audio-visual devices as AV materials.

Auditory and visual materials of every type and function, including printed matter, can and should be created with an eye to visual appeal. With a little ingenuity such materials could enhance as well as augment the field of instructional materials. Each type can, in its own way, perform a necessary function in the teaching and learning process. I write as a classroom teacher who has utilized, created, improvized and evaluated all instructional materials. My experience in the Armed Forces Special Training Unit, about which much has been written, spearheaded this interest. I was part of it when the inspections took place.

None of the resources should be excluded from INSTRUCTIONAL MATERIALS coverage. And, in so far as verbal media are concerned, can we not give visual appeal to text by attractive layout and varied typography?

Let us use and capitalize on the knowledge and skills of the specialist in order to increase the versatility of all teachers. I would even advocate the enlargement of title to include the word EXCHANGE with no partisanship for any one medium or device.

—JACK W. ENTIN

Flushing, N. Y.

Moderation Counseled

Is INSTRUCTIONAL MATERIALS the best name for the DAVI journal? My belief is that, all things considered, it is not the best name. My preference is *Audio-Visual Instruction*. Here are some of the considerations favoring this name:

1. The name *Audio-Visual Instruction*

(Continued on page 58)

THE SCHOOL BUILDING *crisis!*

The Department of Audio-Visual Instruction of the NEA proudly presents the series of 12 charts printed in transparency form in the center spread of this issue. We hope they will prove useful to school administrators and supervisors, to members of boards of education, PTAs, and other interested lay groups.

The increased number of births resulting in increased enrollment and shortage of classrooms and teachers has created a major crisis in American education. This is a problem of national concern which raises many important questions: To what level shall we continue to educate all children? Are we making as efficient use of our buildings and teachers as possible? How are we going to provide the buildings, classrooms and other facilities required? What should be the characteristics of school buildings and the facilities in them? The answers to these questions must be evolved by a well-informed public working cooperatively with educators in each community. It is to help community leaders provide the facts in an effective and useful form that Instructional Materials offers the slides provided on the pages facing this statement.

We hope that every audio-visual specialist will (1) cut these charts on the lines indicated, bind them between the standard glass covers for the 3½ x 4 slide, and make known their availability to the appropriate authorities; and (2) develop additional slides translating the material presented in national terms into purely local terms. This latter point is important and places a responsibility on every specialist in the field. If these materials are to be as useful as possible, they must be interpreted in local terms. What is the local increase in enrollment over the past few years and as projected into the future? What is the local shortage of classrooms? What are the local building or replacement rates?

To our knowledge this is the first time true transparency materials in color have ever been printed and bound into a magazine. We shall appreciate your reactions to these slides and stories of how they were used. We also welcome comment on the desirability of this kind of material, and ideas about material for future issues. A brief general explanation of the content of each chart follows.

—The Editor

Chart 1—Births Since World War II: U. S. population has doubled in the last 50 years. The number of births each year has almost doubled in the last 20 years, reaching nearly 4 million in 1953. In 1946 more children were born than in any previous year of our history—a record surpassed every year since.

The burden of educating this unprecedented wave when it strikes our schools will be far greater than anything we have been called upon to handle before. The rapid increase of births must be matched by an equal expansion of facilities if this generation is not to suffer educational loss. (Data courtesy Fund for the Advancement of Education, *Teachers for Tomorrow*)

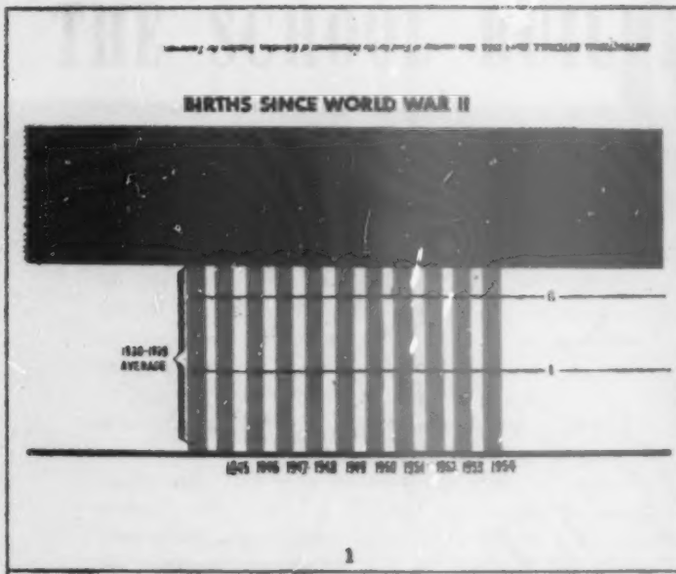
Chart 2 — Elementary School Enrollment 1959-1960: Elementary school enrollments have grown steadily at the rate of about three quarters of a million a year for the last five years. This figure is expected to mount at the rate of more than a million per year for the period between now and 1960. For every two classrooms in the U. S. in 1954, another must be built by 1960 to provide housing for this increase. (Data courtesy American Association of Collegiate Registrars and Admissions Officers, *The Impending Tidal Wave of Students*)

Chart 3—High School Enrollment 1966-1967: Secondary schools will soon feel the effect of the high birth rate. For every three students attending high school in 1954, there will be four students in 1960 and five in 1965. This in turn calls for increases in facilities, staff, and budget if we are to keep education at its present level. *(The Impending Tidal Wave of Students)*

Chart 4 — Projected Enrollment in Higher Education: In the case of higher education, there is a second factor of increase; namely, the percentage of high school graduates who will be attending colleges and universities. The chart presents three possibilities. First, the percentage of high school graduates attending colleges and universities in 1953 will remain constant. Second, this percentage (31 percent) will increase as it has for the last 20 years at the rate of one percent per year until it reaches a total of 40 percent. Third, the increase may reach as high as 50 percent. No one can predict accurately which possibility will become fact. Even if the present percentage of university attendance remains static, the increase based on births alone will be tremendous and will create problems similar to those already felt in our high schools. *(The Impending Tidal Wave of Students)*

Chart 5—Teacher Need in Public and Non-Public Elementary and High Schools: As stated in Chart 2 the enrollment peak is not expected to reach the first grade until 1960. Even then higher peaks may follow, depending upon future birth trends. If we are to maintain the

Cut on Solid Lines



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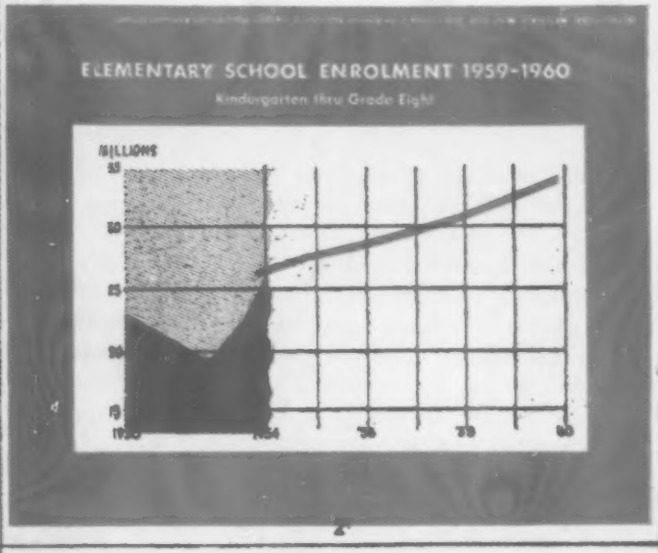

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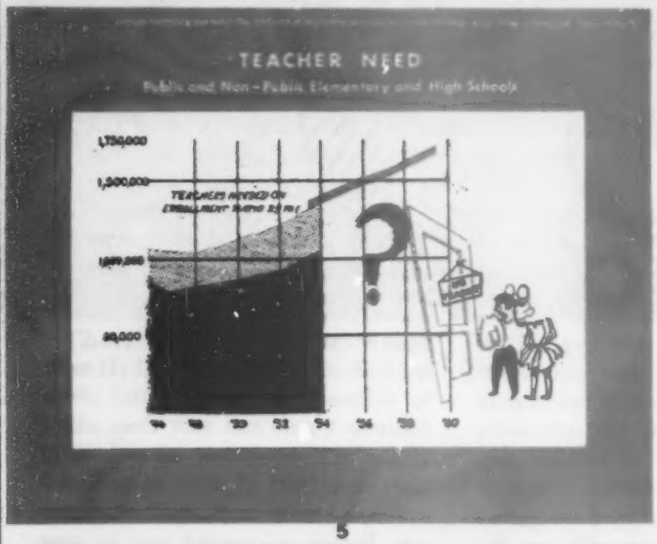

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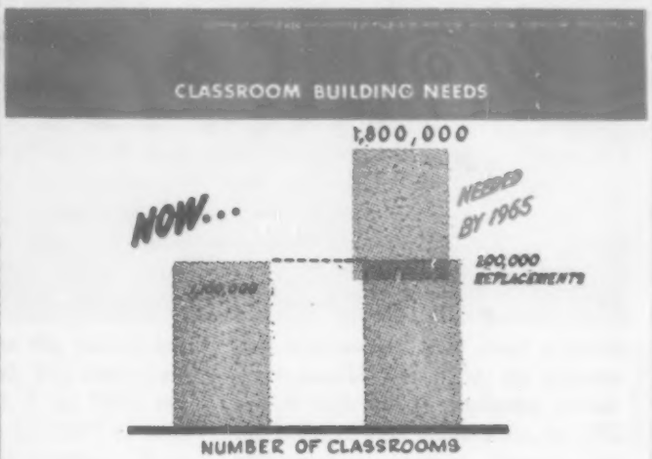

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This sheet of transparencies is provided for your use. The charts are intended to be cut out along the [illegible] indicated
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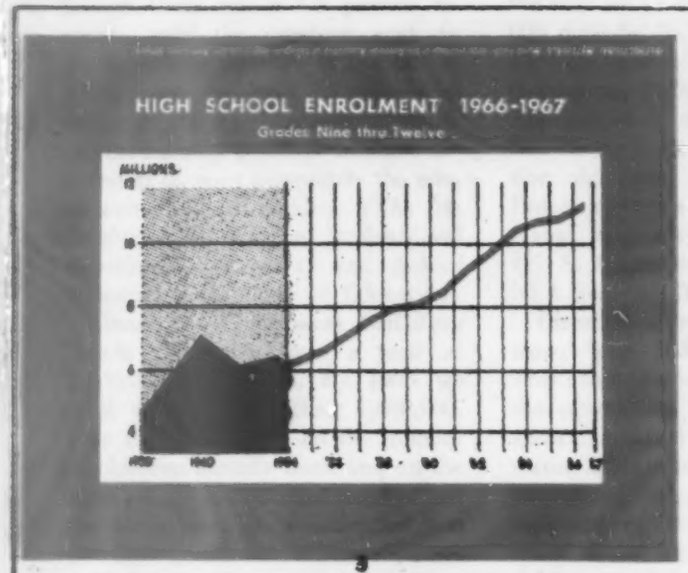

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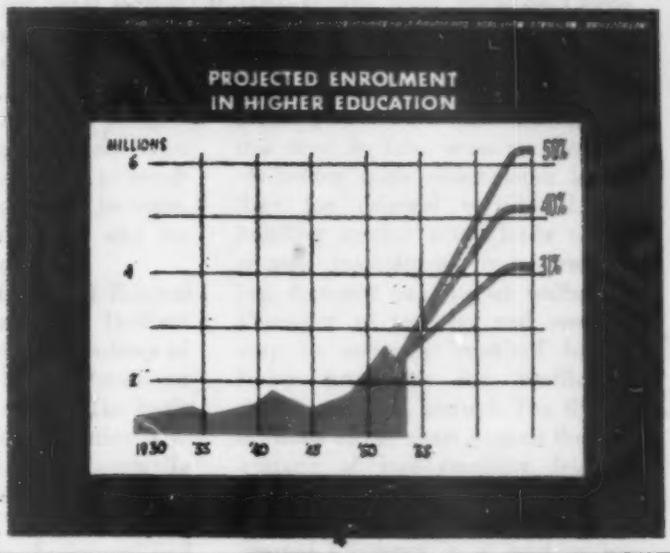

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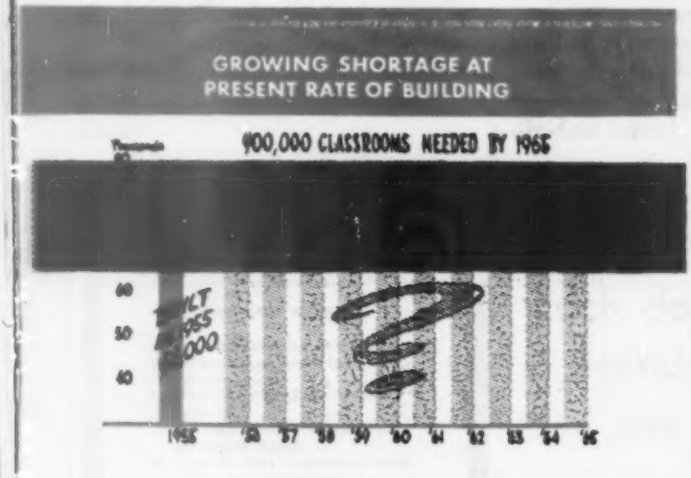

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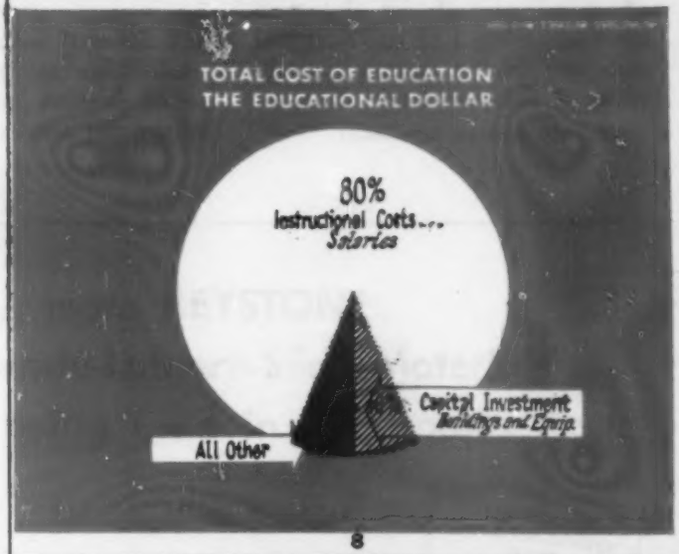
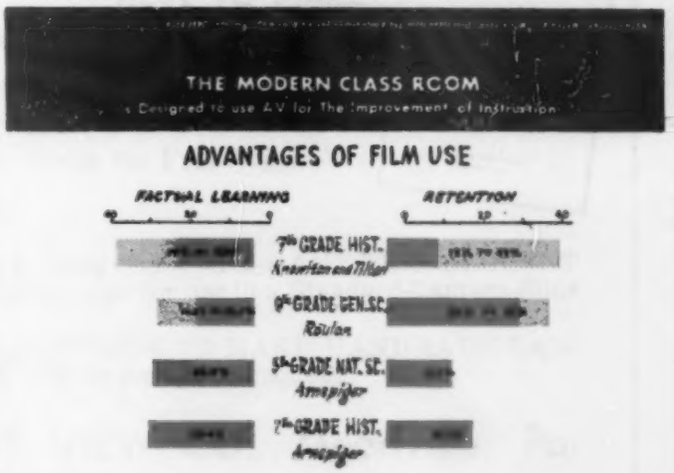


8

HOW AMERICANS SPENT INCOME

	1940	1950
	BILLIONS	
Food and Clothing	$25	$74
Housing and household operation	20	46
Recreation and medical care	7	21
Transportation	7	23
Alcoholic beverages, tobacco, jewelry	6	14
Savings	4	11
Personal business and care	5	11
Foreign travel, religious welfare, private education, etc.	2	6
Personal income taxes	26	20.5
Other taxes or government revenue	15	37
Total government income (all levels)	17.6	57.5
Total expenditure for public education	2.3	5.4
% of govt income for public education	13%	9%

11



12

Cut on Solid Lines

ng ... mounted, inserted between standard glass covers for the 3¼ x 4 glass slide, and used for projection.

Copy ... 56

ratio of 25 students per teacher, we shall by 1960 need two more teachers for every three we now have. Although there was a 6.5 percent increase over the previous year in public school teachers in the fall of 1955, there was also a 3.7 percent increase in the number with substandard credentials. Qualified teachers are essential to meet adequately the educational needs of children. (*The Impending Tidal Wave of Students* and *Enrollment, Teachers, and School Housing*, U. S. Office of Education)

Chart 6—Classroom Building Needs: We now have a total of 1,100,000 classrooms. By 1965 we shall need no less than 1,800,000. This figure is based on the number of children already born and on the ratio of 25 students per teacher. At the same time, it is estimated that 200,000 additional classrooms are needed to replace outmoded and unsafe ones. Thus a total of 900,000 new classrooms are needed in the next decade. (Basic data U. S. Office of Education and NEA Research Division)

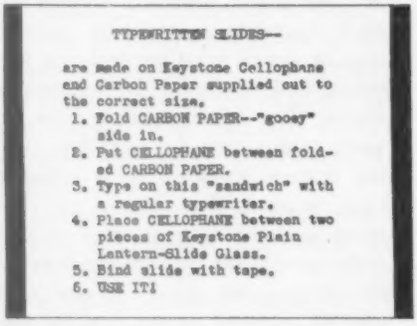
Chart 7—Growing Shortage at Present Rate of Building: With 900,000 new classrooms needed in the next ten years, an average of 90,000 must be built per year. During 1954-55 construction reached 66,000 classrooms, 24,000 short of the goal. Approximately 67,000 new instruction rooms are scheduled for completion this year—again a shortage. Unless classroom building is accelerated, the shortage will increase. (U. S. Office of Education and the NEA Research Division)

Chart 8—Total Cost of Education, The Educational Dollar: This chart presents the breakdown of the educational dollar as based on general national averages. The basic direct labor costs of education (instructional salaries) are generally reckoned as 80 cents of the educational dollar. Fixed costs, bonded indebtedness for the buildings and equipment, amortization, interest, and the like takes another 10 cents. The costs of administration and maintenance take the final 10 cents. In individual school systems, percentages may vary slightly but in the main this will hold.

Chart 9—Probable Results of Lowered Building Quality (By 10%): The point made on Charts 8 and 9 is that if you lower the cost of a school building by 10 percent, you have lowered *the total cost of education by only 1 percent.* Further, this may be false economy because of hidden costs which loom larger than the original savings. Lower building quality often leads to increased maintenance costs—refloorings, frequent painting of walls, etc. Efficiency of teachers and students may be seriously impaired by inferior provisions for ventilation, sound, and light control. The shaded portions of the chart suggest the percentage of loss resulting from a penny-wise pound-foolish approach.

Chart 10—The Modern Classroom: Efficiency is at least as important in the classroom as in the factory. Chart 10 supports the claim that a classroom without provisions for audio-visual materials is as in-

(Continued on page 53)


TYPEWRITTEN SLIDES—
are made on Keystone Cellophane and Carbon Paper supplied cut to the correct size.
1. Fold CARBON PAPER--"gooey" side in.
2. Put CELLOPHANE between folded CARBON PAPER.
3. Type on this "sandwich" with a regular typewriter.
4. Place CELLOPHANE between two pieces of Keystone Plain Lantern-Slide Glass.
5. Bind slide with tape.
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SINCE 1892—MANUFACTURERS OF SUPERIOR VISUAL AIDS

Visuals via SILK SCREEN

A SPEEDY LOW COST PROCESS IDEAL FOR POSTERS

By CHARLES E. BALL
Instructor in Education
New York University

THE SILK screen method of printing flat visuals is an effective, simple, and inexpensive method of producing large poster-size materials. They may be made on paper, cloth, posterboard, tackboard, and many other materials.

The skills necessary to do a satisfactory silk screen printing can easily be acquired with a little practice plus the technical knowledge available in libraries and schools. In all probability you will be able to find a teacher of industrial or graphic arts who will be glad to assist you in learning the process.

A poster should be a thing of beauty as well as a learning aid. This can be achieved by keeping the art work simple in design. An opaque projector can be used to provide a basis for the "tracing."

Large posters find many uses in the classroom—emphasizing dates important in local history, outlining the map of the county, showing parts of a flower, displaying tricky definitions in large type for the whole class to see and study.

One of the advantages of silk screen printing is that the equipment necessary to produce large-size display posters costs only a few dollars, while other methods run to several thousand. Posters have been produced in as many as 5 colors at a cost of less than 20 cents per copy and in quantities ranging from 5 to 500 or more.

Speed is another advantage. Large visuals can be produced in a matter of hours whereas methods involving letterpress or offset printing require time for detailed layouts, and photomechanical work in commercial printing houses. This is both costly and time consuming when one considers the short runs that are usually made for school purposes. More often than not a good idea is discarded because of the cost.

In large cities it is generally possible to make arrangements with silk screen printing shops but for the most part the work can be done in the school. This also gives the children an opportunity to witness the process.

Fundamentally, silk screen printing is a modification of stenciling which most people have done. In fact, many individuals find that silk screen printing is much simpler than using complicated stencils.

Many different colors may be used in producing screened visuals but each requires a separate printing step. A stencil must be made for each color and mounted in a separate frame. The same printing bed (or work table) may be used for all of the frames although it is better to have several. The poster or chart must be dried between each color to make certain the color of the previous stencil does not smear. A simple device of infrared lamps can be used to hasten the drying between colors.

1—Toy stencil provides letters for this teaching chart. Similar devices can be used to furnish required art work.

2—Stencil material is a lacquer-coated wax paper. With a sharp knife letters are cut out of the lacquer layer.

3—The cut out letters are carefully removed from wax paper base. What remains becomes stencil for process.

The pictures on these pages illustrate a print being made of an experimental teaching device. Twenty-five copies were made. Time allotted for each major step was as follows:

Layout	45 minutes
Cutting stencil	75 minutes
Preparing frame	20 minutes
Printing	10 minutes
Clean up	10 minutes
Total	160 minutes

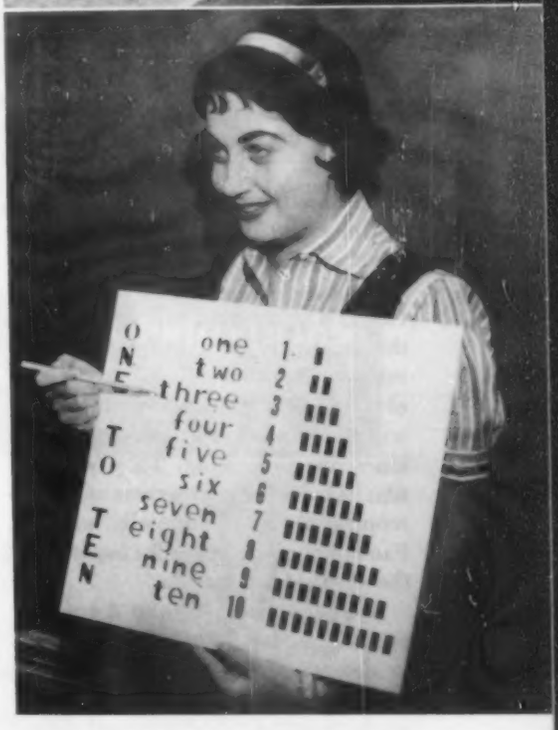
Divide the 160 minutes by 25 and you find that the time required for each teaching unit was 6.4 minutes. If 100 were being printed, the unit time for each would be slightly less than two minutes. The reduction in unit time results from the fact that once the screen is made the time required to make it is spread out over a greater number of prints.

Posters made by silk screen process have a professional look which tends to enhance their use. All too often we hear teachers say, "But I can't draw or do art work." That may be true, but is it necessary to be able to draw to produce satisfactory results?

Beginners will be much encouraged along these lines by reading *The Silk Screen Printing Process* by J. Biegeleisen and E. Busenback (McGraw-Hill Co., New York), *Screen Process Printing* by A. Kosloff (Sign of the Times Publishing Co., New York), and *Graphic Arts Crafts* by D. Kauffman (D. Van Nostrand, New York). See also the article by Robert R. Coleman on page 36.

Supplies needed for silk screen printing are handled in art stores or silk screen supply houses in large cities. Most national suppliers of school art supplies also carry a line of silk screen printing supplies.

7—Frame is lowered on card. The squeegee brings color over the stencil, forcing paint through stencil openings and through the exposed silk.



8—Finished card is now ready for use with figures large enough for entire group to see—only one of many classroom possibilities in silk screen process.

4—The stencil is adhered to silk. Silk has already been stretched tightly and fastened to a wooden frame.

5—Wax paper is removed leaving stencil fixed to silk. Masking tape can be used to fill out between stencil and frame.

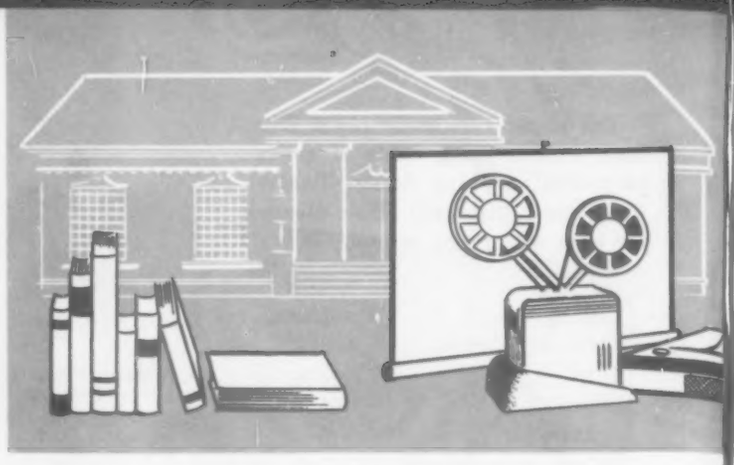
6—Frame is mounted on hinges. Here the technician adjusts position of poster-card preparatory to printing.

DEPARTMENTS

News and Views

Materials and Equipment

Looking at New Literature



FROM THE University of Minnesota comes word of two new films and another near completion. *The Flannelgraph* (25 minutes, color, $175) shows elementary uses of the flannelgraph. *Spring Comes to the Sub-Arctic* (16 minutes, color, $135) illustrates life on a treeline. Nearly finished, *Wood-duck Ways* (19 minutes, color, $160) depicts the life of a tree-nesting wood-duck.

University of Minnesota regents have approved space on the St. Paul campus for facilities for TV Channel No. 2. The antenna will be raised on the university golf course and transmission facilities housed in a portable building. The audio-visual center will take care of still photography and kinescope processing. They will also film many of the programs not kinescoped. Both Minneapolis and St. Paul public schools will cooperate in the work of the station.

Robert Keller heads up a research project by the College of Education to determine which is the most effective method for observing teachers in training—live or closed circuit TV, kinescopes, or classroom observation.

Iowa Demonstration Series

A series of demonstration films in elementary teacher education is being produced by the College of Education at the State University of Iowa. The films will show different experiences in the elementary classroom and will include titles such as: "First-Grade News Time," "Spelling," "Use of the Alphabet," and "Arithmetic." There will be four films in the first series, each film running approximately 20 minutes. They will treat typical classroom situations and will not be staged. The Bureau of Audio-Visual Instruction, in charge of production, uses a technique whereby three cameras operate synchronously with a sound recorder. Director is Herbert F. Spitzer, director of elementary education at the University. Expected release: spring or early summer.

Michigan Book Ventures

Development of a *Guidebook for Beginners in Audio-Visual Administration* has been authorized by a committee of the Michigan Audio-Visual Association under the chairmanship of Robert LeAnderson, director of visual education in Detroit.

A yearbook entitled *Audio-Visual In-Service Techniques* will be released by the Michigan Audio-Visual Association early in the fall. Marie McMahan, of Battle Creek, served as chairman of the committee which developed the materials.

Georgia Survey Results

The 1954-55 audio-visual survey for Georgia reveals that 100 percent of the teachers in 25 of the state's 204 school systems used educational films during the 1954-55 school year, according to Walter Bell, director of audio-visual education in Atlanta.

The board of directors of the Georgia affiliate has voted to continue the Georgia statewide audio-visual survey and evaluation for another year. This is a comprehensive survey of audio-visual programs made in cooperation with the Georgia State Department of Education.

Large Scale Plans

School administrators in Texas will cooperate with the Texas Audio-Visual Education Association in financing and distributing educational films on a large scale in the state of Texas, according to a note from Ernie Tiemann, director of the Audio-Visual Center, University of Texas. Since things in Texas are, just as a matter of course, "large scale," the special use of this term in the note from Dr. Tiemann means that some truly colossal plans are afoot.

A study of the University's 52 teaching departments has been undertaken for the purpose of developing the finest possible program of audio-visual services, according to Dr. Tiemann.

Approximately 100 school administrators took part in a special discussion of state audio-visual programs at an advisory conference sponsored by the Texas Education Agency in Austin. For us outlanders, the Texas Education Agency is the Texas State Department of Public Instruction!

PEOPLE AND PLACES

FRANCIS NOEL, chief of the bureau of audio-visual education, California State Department of Education, is now in Paris where he will spend the next year working with the European Productivity Agency on a project involving the use of films and other audio-visual materials in industry training. Noel will be stationed in Paris, but will carry on his duties throughout Europe. His wife, Betty, joined him late in March.

ROGER E. MAXWELL is the new audio-visual director of the Norfolk (Nebraska) Public Schools. The former director, ROBERT SMITH, resigned to accept a civil service position.

BOB DEKIEFFER, director of the audio-visual center at the University of Colorado, has charge of a half-hour television show, *Video Views*, which presents new film releases and their possible utilization in public schools. Various subject-matter specialists from the University participate. The 13-week series is carried over Station KRMA-TV, Channel 6, Denver, in close cooperation with the Denver public schools.

SAM HARBY, who joined the staff of the University of Miami this year as director of the audio-visual program, was married to Bernice Gillett Conner early in February. Harby was formerly a member of the staff at Pennsylvania State University.

MYRON HOLM is the new director of audio-visual education at Kearney State Teachers College, Nebraska.

CHARLIE CRAKES, of DeVry Technical Institute, may well be one who has spoken on audio-visual instruction at more meetings in more places than any other man in America. For more than a decade, he has been traveling constantly as a modern apostle of audio-visual instruction under the sponsorship of the DeVry Corporation. During March he will be on a tour of West Coast speaking engagements that will cover 16 educational conventions in California, Washington, and British Columbia.

Building Crisis

(Continued from page 49)

adequately equipped as a factory without machines. As indicated, the mean scores of groups taught by traditional methods plus film were from 12 to 35 percent superior to those of non-film groups on initial tests and from 12 to 43 percent superior on delayed (up to 3½ months) tests. This chart deals only with the acquisition and retention of factual information; equally impressive research on the effectiveness of audio-visual materials in teaching skills and changing attitudes is available. (Data courtesy DAVI, *The School Administrator and His Audio-Visual Program)*

Chart 11—Inadequate Building Facilities Mean Less Effective Instruction: "Make-do" provisions, though ingenious, can rarely compensate for errors or poor judgments in classroom design. This slide caricatures the situation in which (1) the sound from one room interferes with the work in adjoining rooms and (2) inadequate provisions have been made for light control. Effective instruction in such classrooms can be achieved only by remodeling at a cost many times higher than would have been required had adequate facilities been planned originally.

Chart 12 — How Americans Spend Income: Can America afford an adequate education for her children—when millions are needed for buildings, facilities, and teachers? Yes! A people who can afford the luxuries indicated in this chart can afford the essentials of education. (Data U. S. Chamber of Commerce, *The Growing Challenge)*

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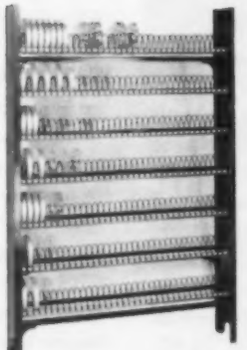
COMBINATION STORAGE UNIT (MM-119). Practical storage cabinet to file the varied film library. Holds 400, 800, 1200, 1600 ft. reels, and 100 filmstrip cans. Houses utility drawer in base. Reels individually indexed plus master index. 70x30x16.

MOTOR DRIVEN REWINDS (PD-1). Saves time & labor when inspecting or checking film. Consists of ball bearing rewinder, connected through a variable six position speed control designed for foot or hand operation. Both units mounted on formica panel 40" x 12".



FILM SEPARATOR RACK (RK250). Ideal filing and Storage Unit for film libraries where enclosed cabinets are not essential. Holds 250 to 400 ft. 16mm reels. Individual divisions and index cards for each reel. Finished in olive grey enamel baked on. 48x72x10.

FILMSTRIP CABINET (MF-8). This six drawer all steel cabinet holds 336 filmstrips of various lengths, each in its own compartment, individually indexed. Plus master index cards on front of each drawer. Baked enamel finish. 13x15x12.

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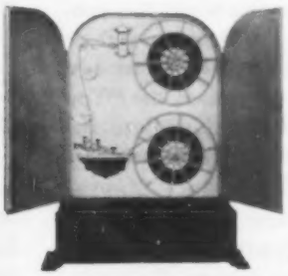

"NEUVATOR" FILM CLEANER (CL-16). Keeps film clean & fresh. Automatically cleans, renovates, polishes, and rewinds in one motor driven operation. Full 1600 ft. reel completed in 12 minutes.

Neumade
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PROJECTION STAND (T-136-C). Basic utility model—all steel for permanent rigidity. Ball bearing rubber covered 3" casters. 36" high x 30" long x 16" wide.

Write for Neumade's new Catalog.

Materials and Equipment

SHOULD THE Materials and Equipment section become an avenue for the exchange of ideas as well as a report of developments and trends? Your editors have received letters recommending a service of this kind. To get your ideas into the hopper write to Robert Burgert, Director of Instructional Aids, San Diego City Schools, San Diego, Calif. (Materials) and William King, AV Director, State Department of Education, Jersey and Lalor Sts., Trenton, N. J. (Equipment).

Caryl C. Dunavan, supervisor of instructional aids for the Plainfield (N. J.) public schools where he is closely identified with its outstanding audio-visual program, offers several good suggestions from his experience with equipment.

To the question, Can you suggest ways for improving present audio-visual equipment? Mr. Dunavan replies: "In general, present day equipment supplied by manufacturers meets the needs of the classroom. There are, however, a few things which might facilitate handling and use."

Mr. Dunavan's suggestions follow: (1) Keep weight down. More equipment is used in elementary schools than elsewhere, and often must be moved by women teachers. (2) Keep the controls simple. Operation of equipment is often a new adventure. (3) Standardize terminals for speakers, microphones, and power cords to simplify interconnecting the various pieces. (4) Eliminate plastic terminals on cords. They have a tendency to break if dropped or stepped on. (5) Connect power cords permanently to the equipment they serve. (6) Design equipment to permit easy access to interior for servicing. This saves much time and money when repairs are needed. (7) Model and serial numbers should be placed in an unobscure but accessible spot. (8) Provide dust covers for equipment which is frequently left set up in classrooms. (9) Provide heavy pieces of equipment with two rigid grips so that they can be carried close to the body with both hands. These are safer and more easily handled than the suitcase type.

In answer to the question, What things would you like to see in the equipment of tomorrow? Mr. Dunavan has this to say:

"Develop a foolproof automatic lock to hold record-player pickup arms in place during transportation. This will save many needles and crystals.

"Make the mythical 'daylight' screen a functional reality.

"Continue the search for economical and practical light control in classrooms."

Do you agree with Mr. Dunavan's comments and suggestions? Has he omitted things that you feel should be included? Reactions from manufacturers will help us define what to expect from their equipment of tomorrow. Both from utilizers and producers we should welcome opinion dealing with general operational principles, construction, and needs in present day and future equipment. Are Mr. Dunavan's opinions typical?

—WILLIAM KING

Addition to Series

Thirteen more films in the "You Are There" series of documentary film programs are now ready for release by Young America Films (18 E. 41st St., New York 7). This is an addition to the 26 programs originally made available to educational institutions on a long-term lease basis.

Nineteen more programs will be completed under the terms of the contract held by Young America with CBS. Reports are that when this contract terminates, the program will no longer be filmed but will be telecast live. Those who have used the "You Are There" series will deplore the educational loss resulting from this decision.

Titles in the new series are: The Last Day of an English Queen (Lady Jane Grey); The Boston Massacre; The Surrender of Cornwallis at Yorktown; Eli Whitney Invents the Cotton Gin; The Hamilton-Burr Duel; The Triumph of Louis Braille; Grant and Lee at Appomattox; The Gunfight at the O.K. Corral (struggle with the Earp Brothers at Tombstone, Arizona); The Secret Note That Plunged America into World War I (the Zimmerman note); Chamberlain at Munich; December 7, 1941; The Rescue of American Prisoners at Santo Tomas; Bannister Wins the Mile Run.

Ten-year leases can be had for $125 per program.

History Visualized

Two popular picture books this past year proved again the appeal of good illustrations: *The Family of Man*, from Edward Steichen's photographic show, sold over 350,000 copies; and *Life's* splendid *The World We Live In* has grossed over $6,000,000.

The extensive use of pictures to visualize history is evidenced in the following:

Changing America, by Patricia Dyett and Andreas Feiniger (Crown, $5.95). The land as it was and how man has gradually changed it—from cliff-dwellers' adobe houses to our great modern cities. In letterpress.

The Frontier Years, by Mark H. Brown and W. R. Felton (Holt, $10). A picture history built around the life of photographer L. A. Hoffman, who from 1878 to 1930 lived at Fort Keogh on the Yellowstone in Montana, and who left a photographic record especially sensitive to the Indian culture.

The American West, by Lucius Beebe and Charles Clegg (Dutton, $12.50). A collection of Indian Scouts, miners, bonanza towns, card sharks, gambling, and barrooms—the pictorial epic of a continent.

The Settlers' West, by Martin F. Schmitt and Dee Brown (Scribners, $7.50). A more sober, "common man" treatment of the Western movement.

Buffalo Bill and the Wild West, by Henry B. Sell and Victor Weybright (Oxford, $6.95). A picture story of the great scout, with a splendid text.

Tales of the Mississippi, by Ray Samuel and others (Hastings House, $7.50). The lore of the river boats and river people.

Mathew Brady: Historian with a Camera, by James D. Horan (Crown, $7.50). Some new, some old, and some poorly printed.

Pictorial History of American Presidents, by John and Alice Durant (Barnes, $10). Timely in an election year.

Tin Lizzie: Story of the Fabulous Model T Ford, by Philip Van Doren Stern (Simon and Schuster, $3.98).

Civil War in Pictures, edited by Fletcher Pratt (Holt, $10). Drawings from *Harper's Weekly* and other illustrated papers of the period; how people in the North saw the war.

The American Wars, by Roy Meredith (World, $10). Battle art as recorded by artists and ranging from engravings of the French and Indian Wars to photographic records of the Korean conflict (1755-1953).

New in Film

Three science films: *Bird Community,* photographed on Midway Island; *The Human Machine,* wherein special effects including animation, photomicroscopy, and X-ray motion picture help illustrate the coordination of body parts; and *Treasures in Snow,* showing the value, source, and exquisite design of snow. Moody Institute of Science, 11428 Santa Monica Blvd., West Los Angeles 25, Calif.

Two new colored filmstrips correlated with popular theatre films: *Alexander the Great,* 55 frames; and *Richard III,* based on Olivier's screen version. $7.50 each. Audio-Visual Guide, 1630 Springfield Ave., Maplewood, N. J.

Three sets of colored filmstrips: A set of eight titles, Our Holidays and What They Mean, *Columbus Day, Thanksgiving, Lincoln, Washington, Memorial Day, Independence Day, Christmas,* and *Easter.* $6 each or $36 for set. A set of five titles, Your World, *Nations Need Each Other, Meaning of Money, Fire, Nature Influences Living, Land Forms.* $5 each or $22.50 for set. A four-title set, Man and Measures, *Early Counting, Early Measuring, Early Time Telling, Geometric Figures.* $6 each or $20 for set. Filmstrip House, 15 W. 46 St., New York.

New 16mm textfilms suitable for teacher education, psychology and

(Continued on page 62)

Towards More Selective AV Listings

The past decade has witnessed a revolution in the field of instructional materials. A once limited array has expanded to the point that selection becomes a never-ending search on the part of teacher, librarian, and audio-visual specialist.

There is today an abundance of professional magazines, catalogs, and other publications which list the teaching materials appearing constantly on the market. To again list all releases would fail to achieve anything new or solve problems of selection. What is needed then is not another unselected listing, but a catalog where one can find combinations of materials and individual items that do a particular educational job well.

For these reasons, Materials and Equipment solicits your contributions. What groupings of materials have you discovered to be especially effective in stimulating interest, transmitting information, or forming attitudes? Have you used, or seen used, materials in novel combinations that others might adapt to their needs?

This section is also interested in specialty items not normally listed by the commercial producer. The opaque projector, flannel board, overhead projector, and tape recorder are devices that capitalize on the creative talents of teachers. Have you developed materials of this nature that could be made available to others at nominal cost? If you have, let's hear about them. Perhaps you are looking for something not available through regular commercial distributors. Tell us your needs, and we'll tell others.

Let us recognize that there is no common denominator as to what we teach, how and where we teach it, or the emphasis that a particular region gives to a concept or topic. We, as well as the producer of audio-visual materials, will be interested to know what you use, how it is arranged, and what you seek.

Condensed listings of teaching aids that tie books, audio-visual materials, and teaching experiences together will bring about an exchange of ideas which will benefit producer as well as consumer. —ROBERT BURGERT

PAT DOWLING PICTURES

FILMS AND FILMSTRIPS

FILMS FOR SCIENCE AND SOCIAL STUDIES

Animal Life at Low Tide
Aquarium Wonderland
Microscopic Wonders in Water
The Backyard Artist
Hawaiian Islands—Their Origin and Nature Today
Hawaiian Islands—The Chief Industries
Our Natural Resources
Our Productive Land
Our Productive Industry

HERE ARE SOME FILMSTRIPS
you may be hunting for on special subjects:

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Music Note Reading for Beginners
Early Western Gold Mining
Evolution of Mechanized Farming

Write for Previews

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LOOKING AT *New Literature*

COMMENTS and suggestions which will tend to improve the usefulness of Looking at New Literature are indeed welcome. Unfortunately, the copy for the second issue of INSTRUCTIONAL MATERIALS must meet a deadline which precedes the publication of the first issue. As a result the readers' reactions have not yet been brought to the editor's attention. The current aim of the editor is to note new works in audio-visual education, curriculum, and related areas. Book reviews are noted with reference to the original source where they may be perused in entirety.

* * * * * *

Audio-Visual Procedures, by Lester B. Sands. Ronald Press Co., 15 E. 26th St., New York 10. 1955. 670 p. $6.

This is a comprehensive manual for teaching the entire range of audio-visual instructional materials. With long lists of resources, it has considerable reference value for all workers in the field as well as for teachers and students. Profusely illustrated.

* * * * * *

Human Relations and Audio-Visual Materials. National Conference of Christians and Jews, 43 W. 57th St., New York 19. 1955. 68 p. 25¢.

Briefly lists materials for use in human relations. The emphasis here is on subject matter rather than materials.

* * * * * *

"Teachers Ask for What They Want," by Garret R. Weathers. *Nation's Schools* 57:92-94; February, 1956.

In the monthly audio-visual department edited by Walter Wittich, the February issue contains an interview with the director of research and audio-visual education of the public schools of South Bend, Indiana. Such questions as these are answered: How much does South Bend spend on AV? Where does the money go? How to buy AV equipment? What is the biggest problem in running the AV department? What do you consider to be your most important job? Does the school principal have a role in AV education?

* * * * * *

Child Drama, by Peter Slade. Philosophical Library, 15 E. 40th St., New York 16. 1955. 379 p. $7.

"The material is organized into three parts: (a) observation and theory which serve to orient the reader to the subject and to a thorough understanding of Peter Slade's concept of child drama; (b) reports and practices which have been used in schools to nurture child drama at every stage from babyhood to the intermediate years; (c) discussion on the various types of children's theatre, the status of each and its place and value; an assessment of puppets and marionettes, films, masks, and make-up." Reviewed by Ethel M. Thompson in *Educational Leadership* 13:330-31; February, 1956.

* * * * * *

Communication, the Miracle of Shared Living, by Dora V. Smith. Macmillan Co., 60 5th Ave., New York 11. 105 p. $2.50.

Reviewed by Mary C. Shemorry in *Clearing House* 30:380-81; February, 1956. Discusses the importance of effective communication to the democratic process.

* * * * * *

"Curriculum and the Gifted." Entire issue of *Educational Leadership* 13; 205-68; January, 1956.

Nine articles on various aspects of curriculum development in this special area are of interest to all persons concerned with instructional materials. Among other articles, audio-visualists will find significant an analysis by Arnold L. Lazarus of the impact of television on students. The Lazarus study is the result of observations during the year 1954-55 made through a grant from the Ford Foundation.

* * * * * *

Teachers Guide to the Use of Community Resource in Economic Education. Joint Council on Economic Education, 2 W. 46th St., New York 36. 65 p. $1.

Deals with the place of community resources in economic education and their utilization in the classroom. Samples of community resource file cards included in section on cataloging community educational resources. Discusses wide variety of teaching aids and techniques useful not only in economic education, but also in other areas.

* * * * * *

"Teaching to a Camera," by Huston Smith. *Educational Record* 37: 49-55; January 1956.

Suggests potentials of educational television from the teacher's point of view, concluding with the observations that "(1) the potential of educational television is enormous; (2) that it calls for a new kind of professional, the educational television producer; (3) that we are in danger of slipping into a philosophy of education by systematic instruction for those who want to learn, as an arm of the schools; and should ask ourselves carefully whether we really intend this in place of a philosophy of education by varied instruction for those capable of learning, as an arm of the total community of which we too are a part."

* * * * * *

"A Word about Field Trips," by Haverly O. Moyer. *Social Education* 20:19-20; January 1956.

Contains suggestions for conducting successful field trips by a professor of education at State Teachers College, Plattsburg, N. Y.

* * * * * *

Public Relations in Education, by Clifford Lee Brownell and others. McGraw-Hill Book Co., 330 W. 42nd St., New York 36. 1955. 250 p. $4.50.

A basic study in the principles of public relations, this will be of in-

(Continued on page 64)

Packaged and portable—Easily moved from classroom to classroom or auditorium. Students can manage it.

Easy setups—Fast and simple because Pageant reel arms *fold* into place. No detached parts.

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ORGANIZATION_____

STREET_____

CITY_____ **STATE**_____
(Zone)

Kodak

DAVI Forum

(Continued from page 47)

is consistent with that of our organization. We *are* the Department of Audio-Visual Instruction of NEA; we are *not* the Department of Instructional Materials. Presumably the latter could be the name of our organization, if we wanted to change it, but do we?

2. The name *Audio-Visual Instruction* is appropriate for our organization and its journal because it describes our main concerns and activities. In the first place, we are concerned with instruction; not merely with *materials* of instruction, but with techniques as well. In the second place, most, if not all, members are primarily concerned with that aspect of instruction which has to do with those techniques and materials which have come to be known as audio-visual. This in no way disparages the generally accepted focus of attention on learning and the learner; nor does it deprecate efforts to cooperate with specialists in other fields whose aim is also to foster learning. Indeed, our *raison d'etre* is the improvement of teaching and communication. This, however, does not commit us to being assimilated into other groups or to assuming their titles. To maintain our own identity is no barrier to cooperation.

3. The term audio-visual, although it may not stand up well under semantic analysis, has acquired a meaning which is generally accepted among professional educators and laymen. Everyone knows, of course, that it is difficult, if not impossible, to say whether certain materials and techniques are, or are not, audio-visual. Certain organisms can hardly be classed as definitely plant or animal, but this does not prevent us from calling a tree a plant and an elephant an animal; and the study of the former botany, and of the latter zoology. By the same token, we need not abandon the term audio-visual simply because we can't agree that *Life Magazine* is or is not an audio-visual material.

In conclusion, I would counsel moderation. Even the worst name could hardly hurt the organization as much as immoderate controversy over the selection of that name. Of the dozens of DAVI members that I happen to know personally, there is none whom I do not respect, whether or not they agree with me on all professional matters. If the present name prevails, I will *not* resign from the organization, I will *not* refuse to read the journal, and I will *not* disparage any of the other-minded members. On the contrary, I will continue to work in DAVI and support its aims to the best of my ability.

—A. W. VANDERMEER

University Park, Pa.

Title Must Match Spirit

"There is nothing so constant as change." This pronouncement by a wise old sage many years ago has particular significance in education where changes must indeed be constant if we are to meet our full share of responsibility as teachers.

Adoption of the broad title, INSTRUCTIONAL MATERIALS—*Published by the Department of Audio-Visual Instruction of the NEA*, seems to me to be fundamental if we, as specialists, are to meet the rising tide of opinion that instruction can be improved through the competent use of ALL instructional materials. In such a move I do not see a threat to the position of audio-visual education, but rather an enhancement of its prestige for assuming leadership in solving problems common to the use of all teaching tools.

The advent of "new models" is a natural outgrowth of efforts toward improvement. We take them for granted in clothes, cars, and even food. New models in education, however, meet with much greater resistance, and acceptance comes only after long periods of deliberation and experimentation.

That audio-visual education leaders foresaw the possible need for change or modification of certain aspects of their program is reflected in the findings of the Audio-Visual Leadership Conference at Lake Okoboji last summer. At that time a warning was issued to school and college administrators to tool up with 20th Century teaching methods in order to meet the influx of millions of new students expected within the next 10 years.

As DAVI's prestige was brought into sharper focus through the foresight of its leaders, it became increasingly clear that this was not a job for any one group. Closer working relationships with allied organizations must be encouraged, not in a competitive spirit, but rather in an atmosphere of mutual understanding and trust.

It was in that spirit that the Interim Editorial Committee attempted to carry out its mandate. A title was selected only after the most careful soul-searching. It is my opinion that the choice is a step toward understanding and harmony.

—GERTRUDE G. BRODERICK

Washington, D. C.

Conciliatory Gesture

Regarding the controversy over the selection of a name for our official publication, may I make a conciliatory suggestion? Let's call it *Multi-Sensory Instructional Materials and Equipment.*

May I defend this title? First, *Multi-Sensory* is a much more nearly accurate term to describe our function. Second, *Materials* includes all the meaning implied in the present name of the publication. Third, including the word *Equipment* should satisfy those who wish to emphasize mechanical and electronic devices. Fourth, it is necessary to retain the word *Instructional* as in the present name. Fifth, the overall connotation of the title I am suggesting gives sufficient scope to anyone working in our field, regardless of his specialty.

—EUGENE D. SHEPHERD

Farmington, N. Mex.

Why Not It's Real Name?

Permit me to put my three cents worth into the "title controversy pot," which seems to be simmering.

It occurred to me that the title, *Educational Screen* suggested scope limited to projected materials. It failed to indicate the broader scope of DAVI activities. However, INSTRUCTIONAL MATERIALS is too inclusive, and yet, paradoxically, seems exclusive in that it deemphasizes multi-sensory aids. As I understand the situation, increased frequency and effectiveness of the use of audio-visual (or multi-sensory) aids is DAVI's primary objective.

I feel sure that, out here in Kansas at least, "audio-visual" does not "bear the stigma of being a non-essential educational extra or even a luxury," as A. J. Foy Cross suggests. We are inclined to think of audio-visual aids as vitamin capsules necessary to supplement an otherwise inadequate, verbalistic diet.

The inclusion of textbooks within the scope of DAVI activities causes me to become apprehensive. Will we spread our activities too thin? In most teaching-learning situations, more emphasis is needed on audio-visual (or multi-sensory) aids, not less.

It seems to me that the title should fall somewhere between *Educational Screen* and *Instructional Materials.* May I suggest *Journal of the Department of Audio-Visual Instruction.* After all, isn't that exactly what it is? Why not call it by its real name? We need not be subtle or evasive. Surely we do not need to apologize for our emphasis on the use of audio-visual instructional aids.

—E. C. ALMQUIST

Hays, Kansas

(See page 60 for other letter)

NOW—

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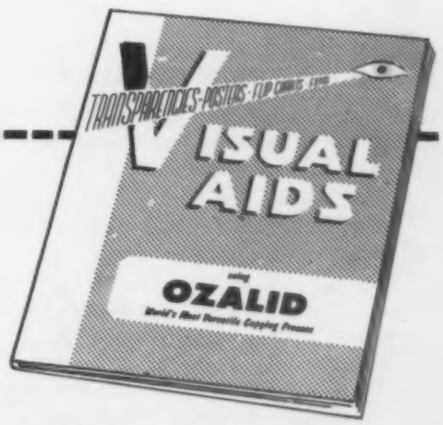

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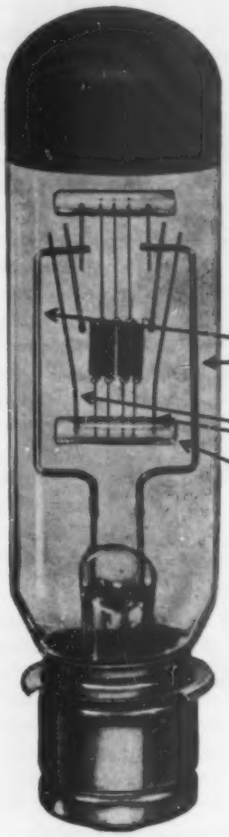
News from G. E., the photo lamp leader:

New G-E filament support is the sturdiest ever offered to projection lamp users!



New G-E *suspended bridge* construction, in 750 and 1,000-watt lamps, offers the most effective filament support ever designed. It streamlines construction, adds strength, improves operation.

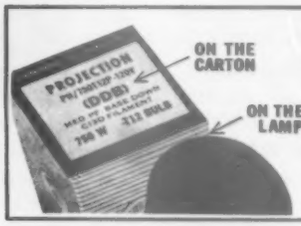
This design advance, made possible by G. E.'s development of special *non-sag* wire, maintains filament form and shape throughout lamp life.

It's the latest example of the many General Electric quality features which mean brighter, more uniform light and long lamp life for all G-E Projection Lamps.

Leads are of one-piece nickel alloy, so strong that jarring impacts will not break unlighted coils. Shipping dangers are minimized.

Shock-absorbing Molybdenum rods cradle the filament, expand proportionately with it.

Lower bridge carefully controls the expansion pattern in spite of temperatures exceeding 5000° Fahrenheit!



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GENERAL ELECTRIC

DAVI OUTLOOK BROADER

It seems to me that INSTRUCTIONAL MATERIALS is a very desirable name for our new DAVI magazine because:

—The response of the majority of the Board of Directors indicates endorsement of the name.

—The name, INSTRUCTIONAL MATERIALS, describes clearly and definitively the area with which the magazine deals. In the past decade the point of view of our organization and its members and our approach to our role in education has become broader and sounder. We give major attention to curriculum theory and practice and recognize that the function of all materials is to assist in the development of an effective curriculum. We consider ourselves curriculum specialists. We recognize the central role of communication in education and strive to learn about and keep abreast of communication theory and research. We have a rather new and highly successful publication called *Audio-Visual Communication Review*. A quick look at the programs for our last four annual conventions reveals a wide range of interests, concerns, and activities dealing with such matters as adult education, accreditation of secondary schools, buildings and equipment, certification of audio-visual supervisors, legislation, teacher education, professional education, in-service education, school facilities for a good learning environment, city, county, state and college programs, tape recordings, television in education and instructional materials. The latter term has been receiving increased attention in DAVI. We named pamphlet No. 3 in the series, *Planning Schools For Use of Audio-Visual Materials*, "The AV Instructional Materials Center."

We have a national committee on instructional materials. A more inclusive title for our new magazine will mirror these trends and give impetus to them.

—My contacts with leaders in education, particularly with the theorists and practitioners concerned with program development and the improvement of teaching and learning, convince me that these people see clearly the major role of materials in the educational process and the need for making a wide variety of learning materials and resources easily and readily available to pupils and teachers. I also believe these people think it important to coordinate all materials and materials services and to relate them closely to the organization responsible for building curricula and improving instruction. I believe they will see in the name, INSTRUCTIONAL MATERIALS, promise of leadership and service in achieving these ends. DAVI has been and is growing steadily as a positive force for the improvement of education in America. Its influence will be greatly multiplied and extended through the publication of a professional journal consistent in purpose and endeavor with the educational leadership of our country.

What I have stated here is, of course, the opinion of only one member of DAVI. It is an opinion based on serious thought and sober judgment. I offer it in the hope that it may help us see more clearly what we want our magazine to be called.

—PAUL W. F. WITT
New York, N. Y.

MIS FILMS BRING THE MARVELS OF OUR NATURAL WORLD INTO THE CLASSROOM ... provide educators with an unforgettable means of teaching the salient facts of the natural sciences.

MIS announces the release of FIVE New Subjects in its series of educational films for the science curriculum...

Title: "WORMS" TO WINGS

Content: The swallowtail butterfly, exhibiting all the characteristics of complete metamorphosis, studied at each stage of the life cycle.

Grade levels: Junior High and Senior High

Running time: 12 minutes

Price: Color, $90.00; black and white, $45.00

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16mm Sound Films...

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Designed for...

specific units in the science curriculum

MIS has produced five more subjects in its series of educational films . . . with the same stimulating, imaginative approach as the previous ten science films, which have created such wide favor with teachers and students alike. Because of their exceptionally fine technical quality and unique concept, MIS films are setting a new standard and creating greater interest in natural science subjects.

AUTHENTIC . . . MIS films present only factual material with unusual emphasis through latest production techniques, such as time-lapse photography and photomicrography.

INSTRUCTIVE . . . Each film is a complete study of the one subject. Material is carefully organized into logical, understandable form.

PROVOCATIVE . . . Presented in such a way as to stimulate thought and encourage the student's own exploration of the world around him.

EXCEPTIONAL QUALITY . . The educational science films are characterized by the same high quality production as all MIS films. Both audio and visual reproduction are exceptionally good.

AN OVERTONE OF REVERENCE . . . MIS films reinforce the moral values of the science curriculum . . . emphasizing the wonder and beauty found in nature, the complexity and logic of natural laws, and the amazing evidence of design in nature.

Title: CICADA—The Insect Methuselah

Content: The mysterious seventeen-year locust and the study of the stages of its strange and unusual life.

Grade levels: Junior High, Senior High and Adult

Running time: 12 minutes

Price: Color, $90.00; black and white, $45.00

Title: TREASURES IN SNOW

Content: A study of the formation of the snowflake and the surprising value of snow in meeting some of man's most basic needs.

Grade levels: Upper Elementary, Junior High and Senior High

Running time: 6 minutes

Price: Color, $54.00; black and white, $27.00

Title: THE BIRD COMMUNITY

Content: Biological communities of life are defined and illustrated. Rare and exotic birds in a bird-park . . . an artificial community of life . . . are compared with the interesting characteristics and behavior of birds in a natural community on Midway Island.

Grade levels: Junior High and Senior High

Running time: 12 minutes

Price: Color, $90.00; black and white, $45.00

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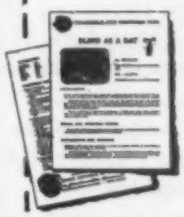

INSTRUCTOR'S GUIDE SHEETS . . .

Each MIS science film is supplemented with a teacher's guide sheet that aids in preparing class sessions and discussion . . . provides questions to stimulate student participation. It also contains significant additions to students' scientific vocabulary and a bibliography for further study.

Materials and Equipment

(Continued from page 55)

child understanding: In the Child Development Series, *Children's Play, Children's Fantasies, Sibling Relations and Personalities, Sibling Rivalries and Parents.* New in the Planning for Teaching Series, *Planning for Personal and Professional Growth, Effective Learning in Elementary School, Guiding the Growth of Children, Promoting Pupil Adjustment,* and *Broader Concepts of Curriculum.* New in psychology, *Learning—I, Learning—II, Learning—III, Individual Differences, Common Fallacies on Group Difference, Conflict, Perception,* and *Nervous System.* McGraw-Hill Textfilm, 330 W. 42 St., New York.

Spanish Made Easier

Interest in learning foreign languages has made the production of Learn at Home records a profitable business venture. Aware of their value, publishers of secondary foreign-language books have made available records to accompany such popular texts as *El Camino Real* (Houghton Mifflin); *Español al Día* (Heath and Company); *First Year Spanish* (Heath and Co., and others).

Audio aids of this nature may have value for the elementary teacher's home study but are of little use to the elementary classroom.

Getting Around in Spanish (S. R. Trevino, University of Chicago, Holt long-playing microgroove) is a single 33⅓ long-playing recording. Its aim is to provide a quick and easy mastery of everyday phrases.

The elementary recordings which follow are intended for children living in Spanish-speaking countries, and are therefore not as easy as the titles suggest. However, selected records which the average class might use efficiently include:

Alicia en el país de las maravillas. Non-breakable 78 rpm (SY-5), or 45 rpm (WSY-5) RCA Victor discs, $3. Goldsmith's Music Shop, 410 W. 42nd St., New York 36.

Blanca nieve y los siete enanitos. Non-breakable 78 rpm (SY-2) RCA Victor disc $3. Goldsmith's.

Caperucita roja. Non-breakable 78 rpm (SY-1) RCA Victor disc, $3. Goldsmith's.

La Cenicienta. Non-breakable 78 rpm (SY-4) or 45 rpm (WSY-4) RCA Victor discs, $3. Goldsmith's.

Cuentos de hadras, I° serie. Fairy tales on four 78 rpm discs, $8; *Caperucita roja, El ratón medroso,* and *Las cuatro manzanas* on same disc, and *La Cenicienta* on 2 discs. Also on tape or wire, $8 or on 2 lp discs, $6. Banks Upshaw & Co., 703 Browder St., Dallas, Texas.

Escenitas de México. Nine stories from the collection with this title (see Miscellaneous AIDS) transcribed on five 78 rpm discs, $10; single records, $2; any 4 of the stories on tape or wire, $8. Banks Upshaw.

Español práctico. Eight 78 rpm discs, each containing 40 practical sentences relating to a single topic: *El cuerpo humano, Prendas de vestir, La casa,* etc., $16. Same on 4 lp discs, $12; on tape or wire, $16. Banks Upshaw.

Goldilocks y los tres osos, La gallinita roja, El muchacho y el chivo. Spoken texts for this volume (see READERS). Each story on a separate 78 rpm disc. Set of three, $6. Banks Upshaw.

Let's Talk Spanish. Spoken text of Book I (see READERS). Active vocabulary of 365 words. Four 78 rpm discs, $8, or two lp discs, $6; on tape or wire, $8. Banks Upshaw.

Nueva serie infantil. Thirty non-breakable 78 rpm discs containing 90 folksongs, Christmas carols, action games, stories; $1.25 each disc. Fernando J. Montilla, 447 W. 50th St., New York 19.

Rolito. Decca Album No. A313, 18 M series, sung by Frank Luther. Each of the six 78 rpm discs contains a different story about a little Mexican boy; $6.09 per set. Decca Records, 50 W. 57th St., New York 19.

Filmstrips with accompanying sounds are practically non-existent. Two are listed in the September 1955 issue of *Hispania:*

Mexico. Forty frames in color, text in English, $6. Gessler Publishing Co., Hastings-on-Hudson, N. Y.

Pedro and Maria of México, Children Near and Far series, 1952. Twenty-two frames, in color. Shows how the children live, play, and study; what foods they eat and what clothes they wear. $4. Eye-Gate House, 27-16 41st Ave., Long Island City, N. Y.

Motion picture films with suitable sound tracks are just as rare. Only one can be recommended and that with reservations—*An Airplane Trip to Mexico* (Encyclopaedia Britannica Films). Encyclopaedia Britannica also has Spanish sound versions designed for Spanish-speaking countries. Three are *México Rural—Niños,* 11 min.; *Campesinos Mexicanos,* 11 min.; and *Animales Comunes Del Monte,* 11 min.

Among folk songs, *Latin American Folksongs,* a collection made especially for schools by Bowmar Records (5415 Crenshaw Blvd., Los Angeles 43, Calif.) can be recommended.

SCHOLARSHIPS AT BOSTON

Ten graduate-level scholarships, each valued at $1000, are available in the Division of Communication Arts at Boston University starting in July 1956. The scholarships have been established by the Lowell Institute Cooperative Broadcasting Council's educational television station, WGBH-TV. Each appointee will be given regular assignment in the production crews on the station and will also have the opportunity to carry advanced courses in communications which meet the requirements for the master of science degree in communications at Boston University.

The awards are open to anyone holding a bachelor's degree. Application forms from Leo Martin, School of Public Relations and Communications, Boston University, 84 Exeter St., Boston, Mass. Deadline is May 1, 1956.

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New Literature

(Continued from page 56)

terest because of the importance of public relations to audio-visual education. A considerable portion of the book is devoted "to the techniques of using various mass media of communication, such as the newspaper, radio and television. Other publicity devices, such as exhibits, demonstrations, pictures and public speaking, are also discussed in some detail." Reviewed in *School Review* 64:41-42; January, 1956.

* * * * * *

"Making the Most of the Chalkboard," by Sam Duker. *Social Education*, 20:21-22; January, 1956.

Lists specific ways in which the social studies teacher can make effective use of the chalkboard.

* * * * * *

Preparation and Use of Audio-Visual Aids, by Kenneth B. Haas and Harry Q. Packer. Prentice-Hall, Inc., 70 5th Ave., New York 11. 3rd edition. 1955. 381 p.

Revisions of and additions to this work reflect the expanding role of audio-visual materials.

* * * * * *

International Agreement

The Agreement for Facilitating the International Circulation of Visual and Auditory Materials of an Educational, Scientific and Cultural Character is being considered by the U. S. Senate. Now in force among 14 nations it permits exchange of audio-visual materials without import duties other than those imposed on similar domestic materials.

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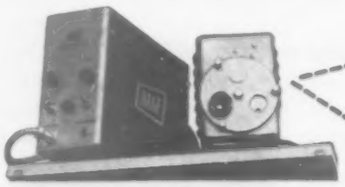

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